AUDIOMEDIA
PROFESSIONAL AUDIO IN PRODUCTION

FINALCUT

Bourne Legacy

"…Pretty Close To Perfect"

Dolby Atmos & You

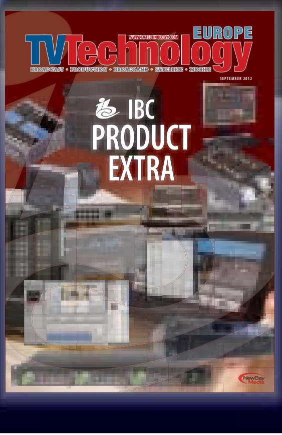
It's all about the Object

Special Supplement

IBC Product Extra

IBC 2012

Show Preview



TV Technology EUROPE

IBC PRODUCT EXTRA

Soundcraft Si Performer

Master Of Sound *And* Light?

A NEWBAY MEDIA PUBLICATION
WORLDWIDE EDITION
ISSUE 262 • SEPTEMBER 2012 • UK £3.80

SD7B
SD10B
SD11B
2012

WIN A CLEVER UB MADI AT IBC

We're giving away four clever UB MADIs at IBC (one each on the first four days). UB MADI offers 48 channels of MADI to USB2 for MAC or PC and is compatible with almost any DAW. - Just drop by our stand before 4pm each day for a chance to win.

7th - 11th SEPTEMBER 2012 Hall 8. Stand B16

DiGiCo Broadcast Series

At this year's IBC, DiGiCo will not only be showing our proven range of dedicated broadcast consoles, we'll also be bringing along the SD9, which is proving to be every broadcaster's must have console along with the (predictably), stunning new SD5.

DiGiCo Broadcast Mixing Console Application Highlights:

- ✓ Direct console to MADI router connectivity
- ✓ 5.1 ingest routing and balancing
- ✓ Fully customizable fader layout for fast access (put any mono/stereo/5.1 channel anywhere)
- ✓ Alternate music mixes
- ✓ Small OB events (Rackmountable SD11B)

www.digico.biz

DiGiCo

DiGiCo UK Ltd. Unit 10 Silverglade Business Park, Leatherhead Road, Chessington, Surrey KT9 2QL. Tel: +44 (0) 1372 845600

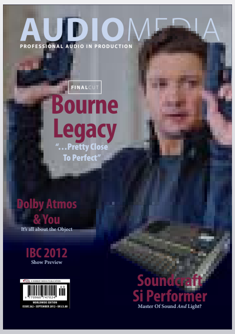
SD7B Digital Broadcast Console

SD11B Digital Broadcast Console

SD10B Digital Broadcast Console

SD9 Digital Mixing Console

New SD5 Digital Mixing Console



Contents

Audiomedia | September 2012 | Issue 262

NEWS

Product News 6
Mackie's mixer lands in the hands of eager musicians, Crown Audio amplifies its VRACK system, and IK and Audyssey release a second ARC.

IBC Preview 10

With more than 50,000 industry-types due to descend on Amsterdam for IBC in September, a little planning will go a long way to ensure that you don't end up battling the crowds in a frustrating plight to see what's what. Take a tip or three from Audio Media to ensure that these picks of the crop are on your list to (smoothly) seek out.

IBC Profile: DiGiCo 14
For the first time, DiGiCo will be exhibiting at IBC. PAUL MAC talks to David Webster, Marketing Director, about what the company has to offer the broadcast market.

Plasa Preview 16
Sakes alive, it's time for Plasa 2012! Audio Media previews some of the very best of what will be on show, for the last time at Earl's Court in London.

Recording News 18
MPG opens up for nominations, while there's no Sting in the tail for JoeCo's latest application.

Broadcast News 19
Stagetec takes pole position at the Olympics in its Games support, while Lawo also measured up with its inundation of fully-prepped OB vans.

Post News 20
The Emmy nominations are announced, and *Downton Abbey* is up for a second year running with Hackenbacker at the helm.

Live News 24
DiGiCo sits behind the wrecking ball of Springsteen's latest tour, Adamson Energia-ises Sonisphere, and Britannia Row lines up a Midas Pro2 for Beady Eye.

What's Up UK 26
KEVIN HILTON considers the relevance of IBC in reaching out to the world beyond Western Europe.

GeoFocus: Spain 28
Spain's economy might be in a bit of a downer at the moment, but there's still life in the music industry. JIM EVANS profiles a Spanish studio, producer, and venue that are defying the economic odds.

CutScene 30
Fabric adds a useful extension to Unity thanks to Tazman, and generative music emerges as a flexible player.

Special Report: Red TX 32
Much more than just trucks, PAUL MAC finds that Red-TX is branching out in through multi-tasking strategy to eat a much bigger slice of the recording cake.

TECHNOLOGY

Soundcraft Si Performer 36

Integrating sound and lighting could be a genius step towards single-console control: omnipotency over the stage. With the lauded world launch recently having been made of the Si Performer in Soho Theatre, London, PAUL WATSON now talks to product specialist Richard Ayres about what makes this console such a game-changer.

Universal Apollo 52
Hype surrounds the Apollo – but is it justified? Perhaps… says ALAN BRANCH, of this rather-special audio I/O interface.

Technology Focus: Wireless Systems 56

If you're looking to invest in new wireless microphone systems, take stock: the market is constantly in flux with new and improved offerings. AUDIO MEDIA presents a handy guide to all you need to know before putting down your money.

Shure UHF-R 62
This handy portable wireless receiver could do very well indeed, offering a major plus point in its scanner function, says ALISTAIR McGHEE.

Steinberg Nuendo Live 64
Live recording software that is quick and easy, ergonomically useful, and integration with Yamaha CL consoles – that's got to be a winner, says STEPHEN BENNETT.

Iosono Anymix 66
So many processors could clog up your workstation – but not with Anymix, which offers a single easy to use plug-in, says STEPHEN BENNETT.

DiGiCo UB MADI 68
Forty-eight channels of MADI in a handy, portable and rugged little USB2 box – something for ALISTAIR McGHEE to get excited about.

FEATURES

Final Cut 38

The original Bourne movie redefined the more-traditional action spy thriller, and its latest installment once again offers a completely new take on sound for the successful franchise. STEPHEN BENNETT talks to Per Hallberg, Supervising Sound Editor, about the "pretty close to perfect" film – as well as finding out what makes Todd-AO, part of the Soundelux group responsible for at least a little of the *Bourne* success, so unique.

Dolby 42
Dolby Atmos: not just a bunch of new speakers, but perhaps a whole new approach to the way audio, is created as well as viewed as part of a totally absorbing cinematic experience. PAUL MAC finds out what it's all about, and where Atmos will take us in the future.

Metropolis 48
21 years old should be 'all grown up'. But at 21, Metropolis is still growing – and growing… finds JIM EVANS.

Video Guide 70
In the past ten years, the shift to digital file-based workflows has been unrelenting. But there still remains the issue of storage for the increasing numbers of files. KEVIN HILTON looks at the storage systems available.

Classic Cut 74
It's not always about the bangs and crashes of over-powering explosions. KEVIN HILTON looks at how the tense, quiet stillness of *The Remains of the Day* enhanced the sombre mood of the film.

Cinemas should start thinking about capital budgets. Systems integrators, and installers should start thinking about lots of new speakers. Audio post facilities should start thinking about adding to their facilities before customers start asking. And Directors, Sound Supervisors, Editors, Sound Designers, and Re-Recording Mixers should start thinking about what, in their world, might constitute an 'object'.

Why? Because the Atmos is coming.

Now IMM Sound is out of the picture (that is, integrated into the new picture) and there are some fairly solid rumours about big films coming soon with 'Dolby Atmos' in the titles, it looks like sound is going to get its very own 3D after all – and we don't need special hearing aids to be able to decode it.

The great thing is that object-based mixing brings so much with it. It brings both creative freedoms and the freedom to add reality. It brings a potential release from the shackles of channels (though the 9.1 might have to be evolved out of the equation first), and it could bring, in the future, a far more direct link from your DAW session to the cinema.

What might put limits on this? Well, with every new creative element, surely time must be added? How much time will depend on how numerous and how crafted objects become. Will time-challenged mixers tend toward to shot cut to channels? I hope not. I hope the mechanisms for manipulating objects are so well thought out that there will be no excuse to ignore the object.

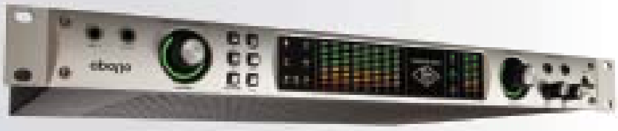
I also hope that cinemas will take it seriously. I actually spoke with the chief tech at my local theatre/cinema combo, where they have been particularly pro-active over recent years, and they already have their eyes on Atmos as a potential customer draw.

Atmos will also be another test of whether cinema is still the leader in format and platform advancement. Will domestic streaming formats take precedence? Companies with interests outside the cinema, in broadcast, cloud services, games consoles, and so on, either have to wait until (if…) Atmos trickles down, or go their own way. Something to watch, maybe?

On an unrelated note, I hope you enjoy the 're-set' of *Audio Media*'s pages. You know how it is… too much time on one song, and before you know it the tracks are weighed down with every effect you own. The only thing to do is knock it down and start again.

Paul Mac, *Editor*

NEWS
Red TX 32



TECHNOLOGY
Universal Apollo 52

FEATURE
Dolby Atmos 42

AUDIOMEDIA *is a Sustaining Member of the Audio Engineering Society.*

AUDIOMEDIA
www.audiomedia.com

AUDIO MEDIA (Europe), Suite L16, South Fens Business Centre,
Fenton Way, Chatteris, Cambs, PE16 6TT
Telephone: +44 (0) 1354 669960 – Facsimile: +44 (0) 1354 669965
General E-mail: mail@audiomedia.com – Press Release E-mail: pr@audiomedia.com

Managing Director/Circulation
Angela Brown
a.brown@audiomedia.com

Group Publisher Europe
Raffaela Calabrese
r.calabrese@broadcast.it

Editor In Chief
Paul Mac
p.mac@audiomedia.com
Tel: +44 (0) 1223 911380

News/AMSR Editor
Jo Fletcher-Cross
jfcross@audiomedia.com
Tel: +44 (0)1223 911133

Production Editor
Lanna Marshall
l.marshall@audiomedia.com
Tel: +44 (0) 1223 911639

Design & Production Manager
John-Paul Shirreffs
jp.shirreffs@audiomedia.com
Tel: +44 (0) 1223 911415

European Sales Director
Graham Kirk
g.kirk@audiomedia.com
Tel: +44 (0)1223 911224

European Sales Executive
Lenette Howard
lhoward@nbmedia.com
Tel: +44 (0) 1223 911153

US Sales West Coast
Janis Crowley
jcrowley@nbmedia.com

US Sales East Coast
Paul Leifer
pleifer@media-sales.net

Subscriptions
subs@audiomedia.com
UK £43
European (airmail) £60
International (airmail) £72
Payable in Sterling through UK bank

NewBay Media
www.nbmedia.com

The contents of this publication are subject to worldwide copyright protection and reproduction in whole or in part, whether mechanical or electronic, is expressly forbidden without the prior written consent of the Publishers. Great care is taken to ensure accuracy in the preparation of this publication but neither IMAS Publishing (UK) Limited nor the Editor can be held responsible for its contents. The views expressed are those of the contributors and not necessarily those of the Publishers or Editor. The Publishers accept no responsibility for the return of unsolicited manuscripts, photographs, or artwork.

© 2012 IMAS Publishing (UK) Limited. All rights reserved.
*Within Broadcast & Production

Advertisers Index

AES	46	Midas	76
AES Pro	31	Mogami/HHB	26
Allen & Heath	33	Nugen	9
Aspen	19	Orban	53
Audio-Technica	20	PMC	51
Avid	23	Prism Sound	34
Behringer	45	Radial	75
Calrec	25	Richmond	30
CES	65	Riedel	15
DiGiCo	2	Røde/Source	55
DPA	17	SCV	35
Earthworks	13	Sennheiser	27
Focusrite	37	Sonic Distribution	5
Genelec	41	Stagetec	22
HHB/Scrub	21	Studer	11
JoeCo	32	Tascam	67
Junger	44	Trinnov Audio	63
KMR Audio	47	Ultrasone	69
Lawo	59	Universal Audio/Source	8
Merging	50		

The Egg
150 System

FREE LOAN SERVICE
CALL NOW FOR MORE DETAILS!

"The bass response is ***extraordinary***..."
Hugh Robjohns - *SOS – UK*

"I'm certain you'd have to go a way up the cost scale to find comparable quality."
Paul Mac - *Audio Media - UK*

"a truly ***unique*** product in a "me-too" marketplace"
Frank Wells *Pro Sound News - USA*

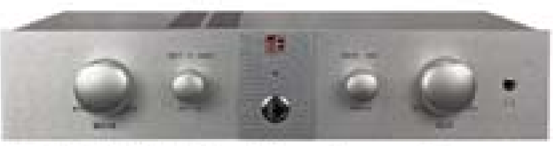
"an ***emotional*** experience." **Paul Mac** - *Audio Media - UK*

"The Eggs look great and the sound is clear, detailed and accurate, but in a way that is very pleasing to the ears. They are in no way clinical, yet certainly do not flatter or colour a mix. In a word, ***perfect***!"
Gil Norton - *Foo Fighters, Counting Crows, Pixies, Terrorvision, Echo and the Bunnymen, Feeder etc...*

"the Egg 150 monitoring system stands direct comparison with its peers extremely well and might even embarrass some!" **Hugh Robjohns** - SOS - UK

"The Eggs are the most refreshingly different speakers I've heard in many years... The sound stage is wide and ***natural***, the midrange very clear and the bass is ***impressive***"
Chris Porter - *David Bowie, Tina Turner, Take That, Pet Shop Boys, George Michael*

25mm silk dome • Neodymium magnet • Power rating: 40W rms, 80W music • Sensitivity: 95dB 1W/1m – 165 mm Polypropylene cone • Power rating: 50W rms, 100W music • Sensitivity: 89dB 1W/1m



Electronically balanced input stage • Analogue active crossover filters • Crossover frequency: 1.1 kHz • LF amplifier: 50Wrms • HF amplifier: 50Wrms

The Egg
You will find the new standard at these dealers:

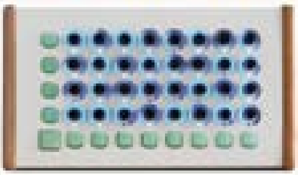
ANDERTONS
www.andertons.co.uk/
ABSOLUTE MUSIC
http://www.absolutemusic.co.uk/
PRODUCTION ROOM
www.production-room.com/
DIGITAL VILLAGE
www.dv247.com/
PROFESSIONAL MUSIC TECHNOLOGY/ DOLPHIN
www.pmtonline.co.uk/
JIGSAW
www.jigsaw-online.com/
GEAR 4 MUSIC
www.gear4music.com/

KAZBAR
www.kazbarsystemsinc.com
WESTEND PRODUCTION
www.westendproduction.co.uk/
STUDIOXCHANGE
shop.studioxchange.co.uk/
GAK
www.gak.co.uk/
KMR
www.kmraudio.com/
MUSIC MATTER
www.musicmatter.co.uk/

www.seelectronics.com
0845.500.2.500

MUNRO ACOUSTICS sE ELECTRONICS

New Code From Livid



Livid Instruments has released version two of its Code MIDI control surface. New features include four internal programmable preset banks, the ability to be externally powered from DC to USB power supply and run without a computer, separate CC control of LED rings, more local control options, a settings channel, and a new editor program.
www.lividinstruments.com

Silver Anniversary Masters

To mark EASTWEST's forthcoming 25th anniversary, Producer and Founder Doug Rogers has signed up several industry heavyweights to develop a Masters series of virtual instruments. In the group are producers Mark 'Spike' Stent (Lady Gaga, Madonna, Muse), Joe Chiccarelli (Raconteurs, Killers, White Stripes), drummers Matt Chamberlain (Pearl Jam, Bruce Springsteen, Peter Gabriel) and Steve Sidelnyk (Madonna, Seal, Massive Attack).
www.soundsonline.com

Alloy Gets Ahead

iZotope has released the next generation of its Alloy plug-in. The exciter module and transient shaper have been redesigned, and new EQ filters include treble and bass Baxandall filters. The user interface has been overhauled to make more controls accessible, and a new Overview panel dynamically adjusts to show only the most relevant settings of the modules in play.
www.izotope.com

Get Your Mitts On Mackie

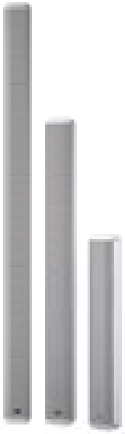
The new DL1608 16-channel digital live sound mixer from Mackie is now shipping worldwide. The compact mixer, which features complete iPad control, has 16 Onyx mic pre-amps and 24-bit Cirrus Logic AD/DA converters. Wired to wireless iPad control allows users to mix from anywhere in the venue, with the ability to control the mix and also plug-ins such as EQ, dynamics, and effects. It supports up to 10 iPad devices, so musicians can control their own monitor mix on stage.

"We are extremely excited to get the DL1608 into the hands of musicians and engineers," said Mackie Product Manager Ben Olswang. "We've been addressing customer interest with a series of video podcasts that go over all the cool features. Plus, the Master Fader Control App has been fully updated with great new features that weren't available in the preview version."

> **"the Master Fader Control App has been fully updated with great new features"**

Updates to the control app include the ability to store and recall pre-sets for all plug-ins, allowing the user to quickly dial in a channel, with factory and user-defined presets available. Other updates include snapshot and show capabilities, so users can store and instantly recall all aspects of a mix. Master Fader version 1.1 is available free from the App Store.
www.mackie.com

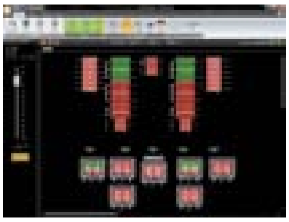
Meyer Steers Into CAL



Meyer Sound has begun shipping of its CAL column array loudspeaker, which is available in three models. "CAL is a digitally steerable column array product in which all high-frequency and low-frequency drivers are tight-packed in a bi-ampled configuration and are individually amplified and processed," explained John McMahon, Executive Director of Operations at Meyer Sound. "These engineering details are essential in enabling the beam control needed for a human voice to cut through a highly reverberant acoustic space."

CAL's vertical beam can be angled up or down in one-degree increments up to 30 degrees to aim at only target coverage areas. Two of the versions also include beam-splitting capabilities.
www.meyersound.com

JBL Manages Performance



JBL has announced the availability of its HiQnet Performance Manager sound reinforcement design software. Version 1.0 is an application-specific iteration of the HiQnet System Architect configuration and control software application for audio system integration, specialised for touring and live performance venue sound reinforcement systems. Adam Holladay, Market Manager for Harman System Development and Integration Group, said that the software was "the product of considerable research, a comprehensive engineering and design effort, and equally committed beta program that included 60 audio professionals drawn from the tour and theatrical communities." The Performance Manager workflow forms the foundation of the software, with a tailored user interface for each and every stage.
www.jblpro.com

Get Into The Arc

IK Multimedia, in collaboration with Audyssey, has released ARC 2 – a major upgrade for the plug-in acoustic correction system. ARC 2 features four times increased resolution across the entire frequency spectrum, due to the new incorporated MultEQ XT32 technology from Audyssey Technologies. This flattens the low-end frequency response and improves the mid and high frequency ranges to make the correction process transparent. Only seven measurements are needed for the software to calculate corrections to the listening environment, which speeds up the process.

The new Custom Target Curves feature allows the user to shape the final speaker response, while the Virtual Monitoring feature mimics the sound of devices such as professional and consumer speakers, car systems, televisions, and boom boxes, allowing the user to hear how the mix translates on different systems. There is also a new monitor control panel and a combined L/R correction option.
www.ikmultimedia.com

>

Crown Expands Rack

Crown Audio has announced that it is adding to its VRACK amplifier management solutions with the new VRACK 4x3500HD. The new version includes three built-in Crown I-Tech 4x3500HD DriveCore Series four-channel power amplifiers in a single plug-and-play rack. It features four analogue inputs, four AES3 inputs and four AES inputs over VDrive, and the ability to select four CobraNet inputs, and a global universal power distribution system that can be set to meet US and international power standards. All components are housed in a wheeled rack with a captive suspension system that allows it to be flown the same way as a line array loudspeaker system. Multiple VRACKs can be linked together for integrated operation in larger systems.

The amplifiers have a 4.3-inch front panel LCD touchscreen that provides amplifier monitoring and access to key functions via colour-coded visuals. The VRACK 4x3500HD offers HiQnet System Architect 3.2 control functionality and Version 5 DSP preset support for JBL Professional's new VTX Series V25, plus VerTec Series line array loudspeakers. Support is planned for JBL VRX and STX models in the near future.

The I-Tech amplifiers provide DSP sound-tailoring capability, and incorporate Crown's linear phase FIR and IIR filters to provide optimised loudspeaker crossover points with improved mid-range clarity and off-axis response.

www.crownaudio.com

> "The new version includes three built-in Crown I-Tech 4x3500HD DriveCore Series four-channel power amplifiers in a single plug-and-play rack."

Smart Mixing From Line 6

Line6 has announced the availability of StageScape M20d, featuring a touchscreen visual mixing system. The audio signal chain can be controlled via an X-Y tweak pad – the user drags a finger towards common sound descriptors such as 'bright' or 'dark', and multiple parameters adjust simultaneously to achieve that sound. More experienced operators can use the Deep Edit mode, which gives access to every effect parameter via a plug-in style interface.

The system also features auto-sensing mic and line inputs and outputs that can detect when a connection is made, and automatically configure the channel gain, EQ, effects, and routing. Multi-channel recording is available. Every channel includes professional-grade effects, and four master stereo effects engines are available. The mixer can be controlled from any location using one or more iPads. Equipped with the L6 Link digital networking protocol, the StageScape M20d allows the user to configure and control complete PA systems of any scale.

www.line6.com

BASSMAXX Says YesMon

BASSMAXX has launched the bi-amped CCM112 YesMon powered monitor. The compact 12-inch monitor incorporates a 1500W Powersoft class D amplifier, coupled to a high power handling neodymium woofer and a co-axially mounted 1.4-inch exit compression driver.

"The size of the CMM simply does not prepare you for its capabilities and output," said David Lee, President and Designer at BASSMAXX. "We've had major artists presented with them for use as a stage monitor who took a look at them with disdain, saying 'That's not going to be big enough, mate,' and then look astonished when we turned them on."

The monitor features tailored anti-feedback presets for specific major-brand microphones. When the pre-set that matches your specific microphone is loaded, the monitor is automatically EQ'd for maximum gain before feedback. The anti-feedback DSP programming allows up to 60 presets on board, with unlimited presets available online.

www.bassmaxx.com

New Tricks From Trilogy

Trilogy Broadcast has launched a significant enhancement to its Gemini IP intercom system. The new digital audio interface handles both MADI and AES signals in any combination. It supports transparent routing of the audio streams, and also provides interrupt capability and stereo to mono mixing. Users now have the ability to strip out audio channels to send to an intercom device – for example, to put a remote commentary feed onto a studio presenter's earpiece. The Gemini's full 20kHz audio quality means it can be used for programme audio routing if the standard path fails for any reason.

www.trilogycomms.com

Make Mine A Single

Dynaudio Professional has released a single amplifier version of its M3XE main monitor system, which was launched earlier this year. The M3VE main monitoring speakers are powered by a four-channel Lab.gruppen PLM10000Q amplifier, using the integrated, active crossover between LF and MF by Lake, while passively filtering the MF/HF crossover point. The M3VE system also has the newest Dynaudio ESOTAR driver technology, and offers a 22Hz-21kHz frequency response and beyond 133dB SPL. The only difference between M3XE and M3VE is that the latter is powered by a single Lab-gruppen PLM10000Q amplifier rather than two.

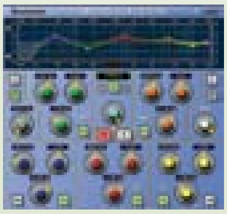
www.dynaudioacoustics.com

A Card From Aviom

Aviom's Pro64 Network Manager version 3.0 can now be downloaded. This version of the software has been released in conjunction with the company's newest product, the C4dio Digital I/O Card for the AllFrame Multi-Modular I/O System in order to support new features. The C4dio is a 4x4 AES3 I/O card with BNC Word Clock Out, In, and with Termination options. Six C4dio cards installed in an F6 Modular I/O Frame allows the AllFrame to be configured as a 24x24 AES3 digital audio interface. When at least one C4dio card is installed, the AllFrame can support external clocks – with the support of the new software.

www.aviom.com

Oxford Has Universal Appeal



Universal Audio has announced the release of the Sonnox Oxford EQ plug-in for the UAD-2 Powered Plug-ins platform. UK-based audio software developer Sonnox is a new UAD Direct Development partner; its Oxford EQ plug-in incorporates the exact equalisation algorithms from the Sony OXF-R3 mixing console. It offers four selectable EQ curves covering a large range of styles, and features co-efficient generation and intelligent processing. The plug-in, now optimised for UAD-2 DSP accelerators and the Apollo audio interface, also has variable HF and LF filters up to 36dB/octave, and fully de-cramped HF response. It also features an editable graphic display of all EQ/filter settings and adjustments.

www.uaudio.com

Oxium Soft Synth Sounds

Music software company XILS-lab has released Oxium, a performance-orientated soft synth plug-in. Its user interface features an Instant Visual Feedback (IVF) concept based around a 'flower' design, with modulation options accessible via a central page. Able to produce 'photorealistic' analogue-sounding sounds, Oxium also has an onboard advanced sequencer modulator.

www.xils-lab.com

Get Some Dubstep Skillz

Ueberschall has launched Dubstep Skills. Inspired by various styles in dubstep, it offers 1.6GB of sounds and loops in 10 construction kits. All beats are available as multi-tracks, separated into bass drum, snare drum, hi-hats, and percussion loops. The 1,058 loops cover a range between 139 and 147 bpm, with lengths between one and eight bars.

www.ueberschall.com

Neyrinck Update Control

The latest version of Neyrinck Software's V-Control Pro iPad app has been released. Version 1.6 now includes control skins for Media Composer, Adobe Audition and Digital Performer, and supports the new higher-resolution iPad 3 Retina Display. A new MIDI driver also improves performance and stability on Windows systems.

www.neyrinck.com

Echo From Sonnet

Sonnet has announced the Echo Express SE, the latest release for the company's Echo series of Thunderbolt expansion chassis for PCIe cards. The new device enables the use of a wide variety of PCIe adaptor cards, originally designed for use in desktop computers, with any computer equipped with a Thunderbolt port.

www.sonnettech.com

Steinberg's Retro Pad

Steinberg Media Technologies has released trial copies of its latest soft synthesisers, Padshop Pro and Retrologue. Padshop Pro delivers two individual tiers in what they say are "granular textures", which can then be mixed and processed. Each layer consists of one oscillator for generating up to eight grain streams, two LFOs that offer a choice of six wave shapes, and two ADSR envelopes that can be applied to various sound parameters.

Retrologue has two oscillators, 12 filter types, and 300 pre-sets, along with two LFOs and two ADSR envelopes.

The company has also announced that its CMC controller system will have an immediate reduction in price of nearly 40 percent.

www.steinberg.net

Soundcraft Lights Up Audio

Soundcraft has launched the Si Performer range of mixers. Built upon the Si Compact range, the Performer range has integrated DMX functionality and so adds lighting control options to the audio features. The Si Performer has almost twice as much DSP power than the Compact range, and increased functionality, with an input capability of 80 inputs to mix on all models. The built in I/O on the Si Performer 2 includes 24 mic and eight line inputs, and on the Si Performer 3, 32 mic and eight line inputs, plus the four FX return channels. There are two option card slots, allowing I/O expansion via any of the Soundcraft stageboxes and option cards from the Soundcraft ViSi Connect range.

> **"The Si Performer has almost twice as much DSP power than the Compact range, and increased functionality,"**

The integration of a DMX512 port offers core lighting control. DMX settings can be stored alongside audio settings in the snapshot system, so both can be recalled automatically with a single button press or via an external MIDI command. Selective isolation allows snapshots with just audio or lighting parameter changes to be recalled.

The console offers fully parametric four-band EQ as standard on all input channels, and BSS graphic EQs on all bus outputs. Fourteen mixes may be configured in various combinations of mono and stereo to a total of 20 mix busses.

www.soundcraft.com

apollo

HIGH-RESOLUTION INTERFACE
with Realtime UAD Processing

ONE GIANT LEAP FOR AUDIO-KIND.

Introducing the Apollo High-Resolution Audio Interface. Decades of UA's analogue design heritage finally meet our esteemed UAD plug-ins in a sleek, elegant recording system for Mac and PC.* For audio producers seeking class-leading sonic clarity, flexibility — and the ability to process sounds in real time with breathtaking analogue emulations and ultra-fast workflow — this is your solution.

Apollo is no small step, it's a giant leap. Learn more today at www.uaudio.com/apollo.

- Superior-sounding 18 x 24 FireWire audio interface with UA analogue design
- Realtime tracking with UAD Powered Plug-Ins (Neve®, Studer®, Lexicon®, Roland® & more)
- Additional mixing and mastering DSP horsepower for your sessions
- Thunderbolt™ I/O option card (sold separately)

www.uaudio.com

UNIVERSAL AUDIO

SOURCE

Exclusively distributed in the UK and Ireland by Source • www.sourcedistribution.co.uk/ua • T: 020 8962 5080

facebook.com/sourcedistribution

twitter.com/sourcedist

©2012 Universal Audio Inc. *Compatible with Mac OS X 10.6 and 10.7; Windows 7 support coming Summer 2012. All trademarks are property of their respective owners. Individual UAD-2 plug-ins sold separately.

Avid Pack In Venues

Avid has announced VENUEPack 4, a new suite of plug-ins and utilities that will come bundled with all VENUE digital console systems. It includes 30 plug-ins from Avid and third-party partners including Flux::, Focusrite, JOEMEEK, Line 6, and others. The plug-ins run natively on all VENUE systems. VENUEPack4 also includes the Flux:: Pure Analyzer Essential software application, a modular RTA system that gives mix engineers a range of live audio analysis and measurement tools when installed on a Mac- or Windows-based laptop. Pure Analyzer can also use the Flux SampleGrabber plug-in to support direct signal acquisition across an Ethernet network from VENUE system monitor and mix busses.

www.avid.com

MOTU Gets On Track

MOTU has released Track 16, a desktop audio interface with effects and mixing. The compact unit offers 16 channels of input and 14 channels of output simultaneously. Audio connections include two mic inputs with individual pre-amps, two guitar inputs, two pairs of balanced quarter-inch line inputs, four analogue outputs, MIDI I/O, and two headphone jacks.

Track 16 features dedicated seven-segment main out meters, and configurable meters for all other analogue inputs and outputs. The unit has one touch operation, and the buttons are backlit with multi-colour LEDs to facilitate operation in environments with low lighting conditions.

www.motu.com

iPad App For X32

Behringer has released the XiControl iPad App for its flagship X32 digital console. The app is available as a free download from Apple's App Store and is compatible with all versions of the iPad. Once installed, the app allows fader control over mic/line outputs one to 32, plus aux one to eight, as well as all eight FX returns, 16 mix busses, the main LRC and matrix outputs, and all eight DCA groups. It also offers real-time metering, channel labels that reflect the LCD scribble-strip settings on the console, and individual channel mutes. Multiple iPads can be used at one time to control the console.

www.behringer.com

New Auralex Treatments

Auralex Acoustics is now shipping its new ProPAD Monitor Isolation Pad, the latest product in its ISO (Instant Sound Optimizer) Series. It provides isolation from the vibrations and resonant energy created by studio monitors, and prevents this energy from being transmitted into the supporting furniture. Sold in stereo pairs, it is designed to work with nearfield monitors with up to eight-inch woofers.

Auralex has also released the QuadFusor Sound Diffusor, which combines four Auralex MiniFusors and arranges them in a 2x2-foot pattern that can be dropped into a ceiling grid or mounted to a wall or ceiling.

www.auralex.com

Genelec Takes A New Angle

Genelec has released the SpeakerAngle app for iOS devices. It is, the company claims, the first digital tool that allows anyone to correctly set and match the angling of both stereo and 7.1 surround sound speakers. On-screen speaker icons move on the app as the actual speaker is rotated, while number boxes below each speaker icon continuously display the angle of the speaker. The number boxes also change colour to let the user know when the speaker is angled within industry recommendations, and when it is angled to the same degree as the other one in the pair.

www.genelec.com

Hosa's Elite Cables

Hosa Technology has announced that its second generation Elite Series microphone cables are now shipping. The upgraded cables have Neutrik XX-Series connectors, plus a new nylon webbing over the cable's PVC jacket. The cables use 20 AWG Oxygen-Free Copper (OFC) conductors that reduce resistance, with polyethylene dielectrics to reduce capacitance.

www.hosatech.com

Underwater Isolation Available

Clark Synthesis has released an Audio Isolation Transformer for the Diluvio Underwater Loudspeaker. The transformer is 96% efficient and is acoustically transparent. The housing is moisture-resistant and has built-in mounting tabs. It also comes with two Neutrik Speakon connectors for easy connection to the amplifier and speaker wiring.

www.clarksynthesis.com

A Massive Kilo

Massive Audio is now shipping its new heavy weighted KILO series subwoofers. The speakers feature a double stacked 150-oz strontium magnet structure, as well as solid diamond polished cast aluminium baskets that house a poly mica lightweight cone fused with a poly glass dust cap, that is then machine 'stitched' together into the surround.

www.massiveaudio.com

Plextor Pro Release

Plextor has just launched its M5 Pro Series, a new performance line of SSDs. It is the first Plextor SSD to incorporate the latest third generation multi-core Marvell 88SS9187 controller, which allows it to handle extremely high loads. It features data protection technology within the firmware, as well as True Speed Technology to prevent performance drop after intense usage.

www.plextor-digital.com

Drive To Vienna

Vienna Instruments

Vienna Symphonic Library has announced the transition of the Vienna Instruments Collections to hard drive and download. The DVD collections have been discontinued, and the company is encouraging those who wish to purchase Vienna Instruments on DVD to buy quickly while supplies last. The Vienna Hard Drive is a 650 GB USB drive, which includes the library installers for all the Collections.

www.vsl.co.at

-21.4
Short-term (LUFS)
-22.9
Integrated (LUFS)
20.9
Loudness Range
Loudness Solved

Broadcast & Post Production Loudness Solutions

EBU R128 | CALM Act compliant

Visit us at nugenaudio.com

IBC 8.D29 | 7.G43

NUGEN Audio

nugenaudio.com | +44 113 357 2250

The time has come for pretty much anyone who is anybody in the world of creation, management and delivery of entertainment and news delivery worldwide to descend on Amsterdam for IBC 2012. Between September 6-12, more than 50,000 attendees from over 160 countries will attend the annual convention, which combines a packed conference with an exhibition that features more than 1,300 suppliers of electronic media technology. So, quite a lot to see and do, then. Audio Media is here to guide you through, with a sneaky peek at some of the product highlights that can be seen at the RAI.

IBC 2012 Preview

HHB Communications will have a lot going on; promising two big new announcements on the opening day of the show, and co-exhibiting with TC Electronic and Mogami. On display will be new product highlights such as the Studer OnAir 500 broadcast console, Universal Audio's Apollo audio interface, broadcast consoles, and the UB MADI USB 2.0 connector from DiGiCo. In addition there will be a range of microphones from RØDE, audio equipment for broadcast, post and testing applications from Studio Technologies and Wohler's range of audio and video monitoring solutions. Mogami's bulk cable products will be on display, as well as its Cable For Life packaged cable range.

Hall 8, Stand D56

www.hhb.co.uk

SOUND DEVICES
PIX 260
REC

Sound Devices will be showing its new rack-mountable PIX 260 Production Recorder. The PIX 260 is a file-based video recorder/player that is intended to replace tape-based video decks in production and post-production environments. It has extensive audio connectivity – with up to 32 track record/playback capability, it can accept eight channels of line-level analogue I/O, eight channels of AES digital, 16 channels of embedded SDI, eight channels of HDMI and 32 tracks of audio over Ethernet using Audinate's Dante. It can be controlled by both external RS-422 and via Ethernet through the embedded web server, allowing for machine transport control over Ethernet-based networks.

Hall 8, Stand D74

www.sounddevices.com

- On the Digigram stand will be the IQOYA *CALL/LE AoIP codec for use over standard internet connections such as DSL lines, WiFi and 3G. It offers a symmetric RTP mode that allows for quick and easy set-up of full-duplex connections over the Internet. Also on display will be CANCUN 442-Mic and CANCUN 222-Mic professional USB sound cards.

Hall 8, Stand C51a
www.digigram.com

- CEDAR Audio will be launching the DNS 8 Live at the show. It is the first DNS designed specifically for live use, and has eight simultaneous channels of dialogue noise suppression. It hosts a new DNS algorithm with a simplified 'two-knob' approach, as well as a detailed editing mode that offers more control than previous dialogue noise suppressors.

Hall 8, Stand A24
www.cedaraudio.com

- Sonifex is showing its new CM-CU1 Commentator Unit, which has the same specification as the CM-CU21 with a feature set tailored to single commentator applications. It has a fully featured commentator position with a line-level input and has an individual commentator output, with an additional output providing a mix of commentator and line input audio.

Hall 8, Stand E61
www.sonifex.co.uk

- Audio-Technica will be showing a range of its most popular broadcast microphones, including the BP4071L and BP4073 shotgun microphones and the BP4001 and BP4002 interview mics. Also on the stand will be the company's true diversity wireless systems, from the 2000s Series to the flagship 5000 Series. The ATSC-60 infrared conference system will also be on display.
- Hall 8, Stand D78

www.audio-technica.com

- The AMP1-MADIe, a new in-rack portable MADI mixer with Ethernet control and configuration, will make its debut on the Wohler stand. It can be connected in series with a 56- or 64-channel MADI stream for individual volume adjustment, mixing and audible monitoring of any selected MADI channels at once.

Hall 10, Stand A10
www.wohler.com

- Over at RTW, the company will be introducing its latest audio measurement products and upgrades, which includes the addition of the TouchMonitor TM3-3G for 3G-SDI audio and the 3G-SDI upgrade for its flagship SurroundControl series. Its other products, which continue to support the latest EBU/IBU loudness regulations, will also be available to peruse.
- Hall 8, Stand E76

www.rtw.de

- TSL will be unveiling several new products, including the PAM PiCo, a compact audio and loudness meter with surround sound display, new additions to the Monitor Plus range of simple, entry-level audio monitoring units and the new VIP Vertical intelligent mains distribution units for comprehensive rack power management and easy installation.

Hall 10, Stand B41
www.tsl.co.uk

- Marquis has several media integration solutions of interest, such as Personal Project Parking, which allows facilities to create a complete copy of any Avid project on any storage device. X2Pro Audio Convert Version 2 the latest version of its conversion application for delivery Final Cut Pro X projects to Avid Pro Tools for audio finishing.
- Hall 2, Booth A58

www.marquisbroadcast.com

>

VISTA 1 COMPACT

DIGITAL MIXING CONSOLE

Quality you can afford and rely on.

STUDER
99 TV

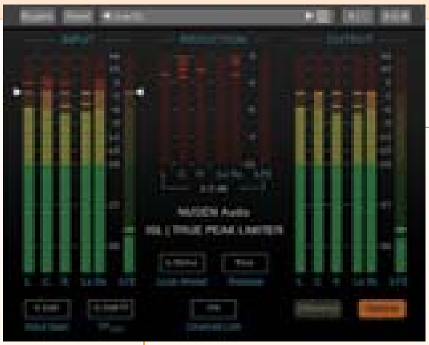
Compact, self-contained and refreshingly affordable, Vista 1 is the feature-packed broadcast sound mixing console you can afford and rely on.

- 22 and 32-fader versions
- Intuitive operation
- Flexible I/O options
- Super-charged workflow
- Powerful surround sound mixing
- Built-in USB jingle/spot player

All I/O is integrated within the control surface and includes 32 mic/line inputs, 32 line outputs, 8 AES inputs, 8 AES outputs and slots for optional I/O expansion including MADI, ADAT, etc.

STUDER
by HARMAN

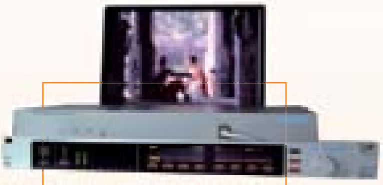
Find out more at studer.ch



Nugen Audio will have its new ISL inter-sample true-peak limiter on its stand. Designed for the control of peak levels in audio signals from mono through to 5.1, ISL measures inter-sample peaks and allows the user to define the true-peak limit of the audio output. ISL is based on the standardised true-peak algorithms of ITU-R B.S. 1770 and related standards, and is suitable for the control of audio in post and broadcast applications. It has been designed for limiting relatively dynamic high-quality audio, but can also be used to hard limit and reduce dynamic range if this is required.

Hall 8, Stand D29

www.nugenaudio.com



Jünger Audio will use IBC to unveil M*AP, the latest addition to its *AP series of audio loudness processors. M*AP combines an audio monitor controller and a loudness measurement device in one unit. It is designed for quality checking 5.1 and/or stereo programmes, and can be used for live monitoring and also to ensure compliance with loudness regulations. The unit comes with alarm signals that alert the operator when pre-set loudness thresholds are exceeded, and these signals can be delivered by simple GPOs and/or SNMP traps, which carry actual loudness values. Loudness measurements can be performed over a long run or over a fraction of a programme or both.

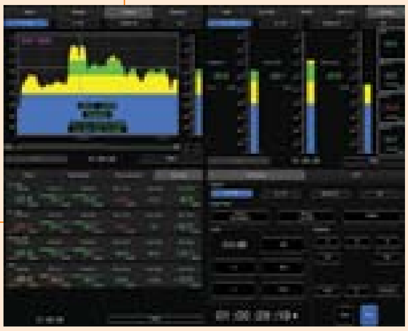
Hall 10, Booth D20

www.junger-audio.com

DK-Technologies will be celebrating its 25th anniversary at IBC 2012, and will be marking the occasion by showing an anniversary ranges of meters branded with new colour schemes and an anniversary logo. Visitors to the company's booth will also have the opportunity to collect a commemorative gift. The DK3 meter will makes its European debut at the show; the meter gives broadcast engineers the ability to de-embed 16 channels of audio from an SDI input, and for those working in a non-video equipped facility, the meter also has three AES inputs. The DK3, like the other meters in the DK-Technologies range, is compliant with all known loudness recommendations.

Hall 8, Stand E60

www.dk-technologies.com



Trinnov Audio will showcase its SmartMeter V3 metering solution at IBC. The new SmartMeter features include time code synchronisation of loudness/true peak measurement, allowing for real time logging and consistent loudness measurements at any time, at all different mixing stages. SmartMeter V3 supports multiple user-defined sources with independent loudness/true peak measurements. The new features mean that users no longer have to manually pause, resume, or start measurements over. All loudness values are stored and time stamped throughout the session, allowing projects to be paused, shared on a network, and resumed in other studios.

Hall 8, Stand A13

www.trinnov.com

> Clear-Com will be presenting several products to the European market for the first time. The company will feature its new HelixNet platform, and will announce an upgrade to one of its existing platforms. As part of its partnership with Optocore/BroaMan, the new BroaMan DiViNe V3R-FX-ICOM-SDI will also be on the stand.

Hall 10, Stand D29a

www.clearcom.com

> Solid State Logic will unveil its new ScreenSound ADR software for film production. The company will also showcase the C100 HDS and C10 HD broadcast consoles, as well as the AWS 948 analogue workstation system. There will also be a dedicated demonstration area for the Integration I/O range, including the company's newest Live-Recorder.

Hall 8, Stand D83

www.solidstatelogic.com

> Studio Technologies will debut four new 5100-Series broadcast support modules. These include the Model 5152 Video Generator with Audio Embedding, the Model 5162 Video Generator with Audio De-Embedding and Model 5140 Intercom Interface. Its Live-Link Jr Remote Camera Interface is now shipping internationally.

Hall 8, Stand E72

www.studio-tech.com

> Calrec will be exhibiting its Hydra2 equipment in a scenario as close to an actual production environment as possible. Demonstrating the Calrec Serial Protocol will be a Ross switcher emulator. Calrec's Artemis Light console, the newest member of the Artemis family of Bluefin2/Hydra2 audio consoles, will be demonstrated, as will the Apollo audio console.

Hall 8, Stand C58

www.calrec.com

> Bel Digital Audio will launch a new 2U audio/video monitor and de-embedder, the BM-AV2-E16SHD, featuring Dolby decoding. In addition, the full production version of the smaller 1U audio/video monitor, the BM-AV1-E16SHD, will also be displayed. The new BM-AV2-E16SHD features 16 individual bargraph meters, a pair of auto-detecting 3G/HD/SD SDI inputs and 10 analogue audio inputs, plus eight AES-3id pairs.

Hall 10, Stand A30

www.beldigital.com

> 4HM will launch its as yet to be named MADI monitor, which will be capable of monitoring up to 64 audio channels and will feature a comprehensive range of MADI facilities. Alongside the new monitor will be the SAM64 SDI/AES to MADI interface, and 4HM's range of breakouts, interfaces and converters for multi-format AES and MADI audio streams.

Hall 10, Stand A30

www.4HMbroadcast.com

> BCD Audio is launching a new version, ALT-1D, of its ALT-1 stand alone microphone amplifier. The original features are retained, including the front panel switching and LED indicators for compressor/limiter and AGC; mic input on balanced XLR with switchable phantom power; and line protection on balanced XLR - now with fault protection.

Hall 9, Stand C01

www.bcd-audio.co.uk

> DiGiCo will make its IBC debut this year, having developed broadcast-specific feature sets for a number of its SD range of digital consoles. On display will be its SD7B, SD10B and SD11B mixing consoles, which cater for a very wide range of broadcast situations. The company will also be showing the newest version of the SD9 live mixer.

Hall 8, Stand B16

www.digico.org

> Trilogy will be launching a new development to the portable IP capability of both Gemini and its matrix based intercom systems, which should provide advances in user flexibility and product utilisation. Trilogy will also be showcasing a range of other enhancements to Gemini. New features and functionality for Watchdog, its configurable Signal Detection and Changeover Unit will be unveiled.

Hall 10, Stand A29

www.trilogycomms.com

> Canford will be launching its recently acquired ES brand of 19-inch rack enclosures and a broad range of rack accessories, plus its own new fibre patching and connection products and new additions to its fibre routing and interconnection range from AFP (Advanced Fibre Products). The D'n'A range of Canford cables will also be shown.

Hall 9, Stand C01

www.canford.co.uk

> On the WorldCast Systems stand, the Stream-In Silver encoder and Stream-Out Silver decoder for

AoIP transport will be on display. The units feature XLR connectors and WorldCast's SureStream technology, which enables broadcasters to deliver audio reliability using the public internet. SureStream protects the stream against lost data packets and minimise the incidence of drop-outs or glitches.

Hall 8, Stand B50
www.worldcastsystems.com

> Netia will unveil the enhanced version of its Content Management System (CMS). Netia's CMS allows users to manage all processes within the global production environment through easy-to-manage workflow and task automation; the new release includes enriched features in its metadata management module, more robust indexing and segmentation tools, and more flexible control over the entire system.

Hall 1, Stand A29
www.netia.com

> Wowza Media Systems will announce the newest enhancements to its media server software. The latest version includes an audio-only option for the Wowza Transcoder AddOn, dynamnic overlays, additional content protection options, multi-cast and more.

Hall 14, Stand 162
www.wowza.com

> Miranda Technologies will give its Intelligent Automatic Loudness Correction (ALC) its European debut at IBC. The end-to-end loudness solution includes monitoring, logging and correction using real-time processing during the playout workflow. It uses information fed from a broadcaster's traffic system to identify whether content has been corrected already.

Hall 8, Stand D41
www.miranda.com

> Snell has introduced an EBU-R128-compliant loudness meter and monitoring GUI into its RollCall control and monitoring system. Able to display the live loudness values graphically, it also includes a history log that allows the user to scroll back and analyse the loudness levels from the start of recording via start, stop, and reset controls.

Hall 8, Stand B68
www.snellgroup.com

> Utah Scientific will showcase embedded-audio signal processing for the UTAH-400 series of digital routing switchers. The capability comes via a new line of I/O boards that rely on FPGA technology to perform signal processing. The router will now be able to deserialise and decode a signal into its component data streams without compromising the router's overall operational reliability.

Hall 2, Stand B20
www.utahscientific.com

> Tedial will be showing the redesigned interface to its Tarsys MAM solution, which provides additional features for cataloguing, editing and exporting media to third-party systems. The new GUI has been specifically designed to simplify collaborative working between professionals in any media enterprise. It will also be showing its Ficus BPM Web Client, and its new enhanced Capture application.

Hall 8, Stand B41
www.tedial.com

> Emotion Systems will feature eFF Audio, a software application that automatically analyses and fixes audio loudness violations in file-based media. It now has MXF functionality as well as multiple language UI support. Its software delivers accurate measurements against predetermined parameters, generates a detailed file error report and repairs files to meet established criteria.

Hall 6, Stand C28b
www.emotion-systems.com

A wide range of TC loudness products will be on display at IBC, including the LM2 stereo loudness meter, D22 digital broadcast delay, DB2 loudness correction processor, DB4 MKII and the System 6000 MKII signal processing flagship, among others. Dynaudio BM5A compact, BM6A MKII, and DBM50 monitors will also be exhibited.

Hall 8, Booth D56
www.tcelectronic.com
www.dynaudioacoustics.com

–Foodstuff–

Exhibitions are all work, aren't they. No time to relax? Well, a good meal sometimes eases the sore feet just a little bit. Here are a few recommendations for eating out in Amsterdam while at IBC…

Castell Bar-beque Restaurant

Nominated by: Paul Mac, Audio Media
Need a good steak? Castell is just a short walk form Leidseplein.
A: Lijnbaansgracht 253
P: +31 20 622 86 06
W: www.castellamsterdam.nl

De Kas Restaurant

Nominated by: Anne Berggrein, DPA Microphones
A restaurant with built-in greenhouse and nursery. There's a harvest at sunrise everyday, ready for fresh service in the restaurant.
A: Kamerlingh Onneslaan 3
P: +31 20 462 45 62
W: www.restaurantdekas.nl

Sapporo

Teppanyaki & sushi restaurant
Nominated by: Sam Cordell, Soundcraft Studer
A: Scheldestraat 99
P: +31 20 471 00 39
W: www.sapporo.nl

Gauchos

Nominated by: Dave Neal, Soundcraft Studer
Apparently, it's the ultimate Argentinean steak experience.
A: Beethovenstraat 55
P: +31 20 679 91 33
W: www.gauchosgrill.nl

15 Restaurant Amsterdam

Nominated by Marcus Brooke, Sonifex
Jamie's place in Amsterdam. Nice food and big open atmosphere inside, a 20 minute walk from the train station.
A: Parkhuis Amsterdam, Jollemanhof 9
P: +31 20 509 50 15
W: www.fifteen.nl

WL40V
NOW AVAILABLE

Elevate your wireless system.

Engineered to maintain the same sound characteristics as its wired counterpart, the SR40V, the WL40V Wireless Capsule delivers a detailed and pure vocal sound that requires little to no EQ. Its near perfect hypercardioid polar pattern and extended flat frequency response translate to a natural on- and off-axis performance with extremely high levels of clarity and depth. Redefine the limitations of wireless as you take the pristine sound and flawless performance of Earthworks microphones and bring them to the wireless world.

The All New WL40V.
earthworksaudio.com/wl40v

Earthworks®
HIGH DEFINITION MICROPHONES™

IBC Newstalk

DiGiCo will be exhibiting at IBC for the first time in 2012 to stake its claim to the broadcast market. With broadcast-specific software for its consoles and useful tools, like UB MADI and The Purple Box, plus a rapidly growing number of happy broadcast customers in the US and elsewhere, David Webster, who handles marketing for DiGiCo, believes that the time – and the products – are right.

David Webster: "We developed broadcast specific software for the SD7, SD10, and SD11 last year – the SD11 being specifically requested as a compact solution for the final of the UK's *The X Factor*. We took the SD10B to the NAB show this year, as it's a great solution for broadcast trucks, particularly for the US market. We knew Europe would be more difficult to penetrate, so we concentrated on Asia Pacific and America first to establish our reputation and provide us with reference projects which would enable us to demonstrate our products' suitability."

Paul Mac: And where was the market for the SD10B?

DW: "We saw a definite gap in the US sports market, particularly where surround sound is required. There may be as many as 48 mics around a ballpark, for example, to capture the sound of the ball as it's going round the field. It's an important part of the broadcast mix these days, especially with the advent of HDTV, as the audio really enhances the viewing experience.

"Chris Fichera, who works with Jack Kelly at Group One (DiGiCo's distributor in US), is well known not only in the post production and film studios, but within broadcast. His appointment at Group One is a vital part of our success story. When he came onboard he encouraged the US broadcasters to look at the SD10B and they realised what it could do for them. We now have several big clients in America and the majority of the big players own or have used DiGiCo consoles for major events. This has led to DiGiCo consoles being specified, which is like being on a rider in the concert touring market, and that's been very good for us. People see them and go, 'wow – what this does for the money is incredible. A console with more than 96 channels that will run at 96k for under US$100,000..,!' There really wasn't anything around at that price with broadcast specific feature sets, such as 5.1, backstop PFL, a proper monitor matrix, etc, in the broadcast market.

"All the big players in the US now have used or owned or rented-in DiGiCo consoles for major events – like X-Games... And now they're specifying them."

David Webster, DiGiCo

"Our entire range of SD consoles is based around Stealth Digital Processing and this enables us to provide broadcast specific feature sets for other SD consoles in the range, which has great benefits.

"For example, you might have a lot of 5.1 stereo feeds that you need to manage in a very small space. The SD11B perfect as it's extremely compact – you can even rack mount it – which means it's possible to get it into even the smallest broadcast truck and it gives you many more facilities and extras than any previous product.

"We also have some simple, but incredibly useful, products in our Solutions range, including the Purple Box, which is a MADI to optical converter, and UB MADI, which allows you to record 48 channels of audio straight to your PC or Mac – something no one thought was possible."

PM: And now DiGiCo will be exhibiting at IBC for the first time. The NAB strategy for the European market?

DW: "IBC is not just for the European market, it attracts people from all over the world, just as NAB does. You get cross-pollination at trade shows regardless of where they are, but we had to be sure it was the right time for us to exhibit at IBC and, having made headway in other geographical areas, we decided our profile was good enough to make it worthwhile attending."

PM: And now, HHB Communications has taken on the distribution for DiGiCo in the UK.

DW: "Yes, and we're delighted. We always want to make sure that we have the right partners, and HHB is a great company to be working with.

"In all areas of our business, we rely heavily on relationships, but it's doubly important for us in broadcast. HHB has those relationships already established, which is why they will be really good as our broadcast dealer, and also the distributor for UB MADI."

DiGiCo
w www.digico.biz
IBC Stand No: 8.B16

UK Broadcast Dealer:
HHB Communications
w www.hhb.co.uk
IBC Stand No: 8.D56

The DiGiCo SD10 – leaps and bounds into the broadcast arena.

Riedel
Solutions Hotline
+44 (0)118 934 1400
See you at
IBC
Hall 10, Stand 10.A31

RIEDEL

Integrated Real-Time Solutions for Studios, Mobile Productions & Stadiums

SIGNAL TRANSPORT & ROUTING

- MEDIORNET
  Fiber-based Real-Time Media Network
- ROCKNET
  Performance Audio Network
- PURE NEW
  Heavy-Duty Tactical Fiber Cable
- SMART RACK NEW
  Modules for RF-over-Fiber, CWDM & WDM Multiplexing/De-Multiplexing
- RILINK
  Global Fiber Service

VIDEO PROCESSING

- Up- /Down-/ Cross-Conversion
- Quad Split
- Frame Store Synchronizer
- Embedder/De-Embedder
- Test Pattern Generator
- On-Screen Display
- Timecode Insertion & Display

INTERCOM

- ARTIST
  Digital Matrix Intercom
- PERFORMER
  Digital Partyline Intercom
- ACROBAT
  Digital Wireless Intercom

TWO-WAY RADIO

- RIFACE
  Universal Radio Interface
- JUGGLER
  TETRA Radio Interface
- AIR / PRO / MAX
  Radio Headsets
- MOTOROLA
  Two-way Radio Rental

WUPPERTAL | BEIJING | BERLIN | GLENDALE | LONDON | MOSCOW | SÃO PAULO | SINGAPORE | SYDNEY | VIENNA | ZURICH

www.riedel.net

PLASA 2012 Preview

Live Time

September has rolled around once again, which means that it is time for PLASA 2012. PLASA is the largest international event for entertainment and installation technology professionals in the UK. This year it will be taking place at Earls Court in London for the very last time, as next year it will take place at ExCeL, London, for the first time (and at a slightly different time of year, October 6-9 2013). "After 21 years at Earls Court & Olympia, the time is now right for the PLASA Show to leave its current home," commented PLASA CEO Matthew Griffiths. "We have hugely ambitious plans for the future of the event and the state-of-the-art facilities at ExCeL support this vision".

So you'll want to savour the last days of PLASA at Earls Court. But how to make the most of it? As usual there will be a lot going on , not least the AudioLab, a new pro-audio feature at the heart of the show. It is a full-volume demo area dedicated to the demonstration of loudspeakers, and will give visitors the chance to listen to products in a real-world environment.

On Sunday September 9, Norton Audio will be demonstrating its new P1 system, which is designed to be completely self-sufficient, using a dedicated processor linear speaker.

Martin Audio will be taking over the AudioLab on Monday, September 10, with the OmniLine array plus its new two-way enclosures that are being launched at PLASA, the high output XD15 and XD12. Also at AudioLab will be the DD6 Differential Directivity enclosure. On Tuesday, September 11, Bose Professional Systems Division will use a mix of live bands and recorded music to demonstrate the RoomMatch series of array module loudspeakers, powered by the PowerMatch PM8500 configurable professional power amplifier.

There are also opportunities to see audio demonstrations taking place in the private hospitality rooms, by Duran Audio, Funktion One, Sennheiser, and KV2 Audio.

Free Training

The PLASA Professional Development Programme consists of over 100 free to attend sessions, specialist conferences, product training, special interest seminars, and in-depth project based case studies. The Association of Sound Designers will be running three training seminars, open to all attendees. Roland Systems Group provide hands on live sessions, and Midas are offering PRO1 and PRO2/2C training sessions. There is a panel discussion with representatives from Meyer, d&B audiotechnik, and Munro Audio titled 'Are We Near To Perfect Sound?', sessions on loudspeaker design and sound level measurement, among other topics. There is also a whole strand of 'Olympics Uncovered' sessions, so if you were wondering, 'how did they do that?', then these are for you. The first session to take place as part of the programme will be 'Backstage At The London 2012 Ceremonies', chaired by Technical Director Piers Shepperd and the Technical Manager team, who will present an overview of the staging, flying, audio, AV, and special effects behind the Olympic Ceremonies. Of these sessions, Matthew Griffiths commented: "Summer 2012 has provided PLASA members, London, and the UK with a unique platform on which to showcase their credentials as one of – if not the – leading creative industries in the world. The Olympics Uncovered programme has been created to celebrate our industry's contribution to this monumental occasion with a series of fascinating educational sessions".

Allen & Heath will be launching two new products at PLASA, as well as showcasing the recently released ZED60-10FX and ZED60-14FX, based on the ZED-10FX with the addition of premium quality 60mm faders. Also on display will be the new GLD live digital mixing system and other recent additions to the ZED and Xone ranges.

Stand 1-F2

www.allen-heath.com

DPA Microphones and its UK distributor Sound Network will showcase its range of microphones suited to the live sound and touring industries. The products on show will include the expanded d:fine series of headset microphones and the new d:facto hand-held vocal mic. The d:vote 4099 instrument microphones will also be on the stand.

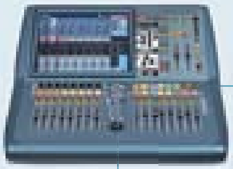
Stand 1-F38

www.dpamicrophones.com

Clear-Com is bringing several products to the European market for the first time, including its new HelixNet platform, updates to the company's Tempest line, including Seamless Roaming and Tempest MasterBelt features. The new headsets will also be on display for the first time at PLASA 2012.

Stand 1-F29

www.clearcom.com



The Midas Pro1 and Venice U are making their European debut at the show. The Pro1 features new manufacturing materials and techniques and has comprehensive I/O on the back, with a price point that opens it up to freelance engineers and small music venues. VeniceU is a compact console, which also opens Midas sound up to applications where it may not have been possible before.

Stand 1-F19

www.midasconsoles.com

Out Board will debut the new TiMax2 SoundHub PanSpace graphical sound-effects pan programming map, which works in conjunction with the TimeLine editor. Users can create multiple fully editable pan trajectories in any cue, which can operate on internal or external sources and be triggered by the Timeline or a variety of external show control interfaces. Also debuting are new iPad and iPhone apps for the TiMax SoundHub system matrix, playback server, and audio show controller. Also on the stand will be the CAB-5 Cable Tester and RCD-T modules, developed with Data Strategy.

Stand 1-H9

www.outboard.co.uk

DPA
MICROPHONES

Meet us at
PLASA, stand 1-F38 and
IBC, stand 8.D70

d:fine™ headset mic

DPA's tried and true miniature condenser capsule in a sleek housing with a newly designed self-adjusting ear mount.

Intended for high performance, the DPA d:fine™ features superior transparency and increased protection against wind pop and noise, all with a low profile design.

▸▸▸ See the d:fine™ in action at www.dpamicrophones.com/dfine

Nominations Open For MPG Awards

Nominations are now open for the 2013 Music Producers Guild Awards. Now in its fifth year, the Awards will take place on February 13, 2013, at the Cafe De Paris in London. Nominations will be open until October 5, 2012, and as in previous years, the winner of the MPG Producer of the Year category will automatically win a BRIT Award for Best Producer. "Over the past four years the MPG Awards have shone a very bright spotlight on the vital role UK producers' play in the success of the music industry," commented MPG Chairman Steve Levine. "This is exemplified by the achievements of the 12 individuals who have been shortlisted for the MPG's Producer of the Year Award since 2009. Between them, these producers have been responsible for 100 Top 10 UK albums and 50 Top 10 UK singles, while the four winners have produced a total of 17 international artists and 32 UK artists."

There are significant changes to the Studio of the Year award. The entry criterion has changed so that studios can easily highlight their facilities and the work they have been doing. Submissions will follow a simple format that includes a 300 word summary about each studio, up to five pictures and a minimum of two testimonials.

www.mpgawards.com

Ronan Hill, Production Sound Mixer for HBO's *Game of Thrones*, has invested in a new Sound Devices 788T-SSD with a 744T used as a cart-based, two-channel back up for the hit show. He has been using a 788T since the first series, and that unit is now used as a dedicated portable run-and-gun recorder. *Game of Thrones* has a character count of more than 300, and a typical scene can have more than 10 principal characters speaking. In order to keep ADR to a minimum, Hill has to capture all the dialogue on location as well as recording ambience.

www.sounddevices.com

The AES has announced that the 134th Convention will be held for the first time in Rome from May 4-7, 2013. It will be at the new Roma Eventi – Fontana di Trevi Conference Centre, and will be chaired by Umberto Zanghieri, VP of the AES Southern Europe Region. Designated by Benedict XV as home to the Gregorian University, the Conference Centre covers almost 30,000 square feet, and consists of 15 meeting rooms.

www.aes.org

Hal Leonard Books has published *Logic Pro For Recording Engineers and Producers*. The guide is designed to help engineers and producers who are already proficient in another DAW software platform make the transition to Logic Pro. Text, illustrations, and examples are geared toward demonstrating the creative, practical, and technical benefits of the platform. In the release, James Valentine of Maroon 5 paised the expertise of the author, Dot Bustelo: "Dot was the first one to introduce me to Logic," said James Valentine from Maroon 5. "She knows this software inside out, and she breaks everything down in an easy-to-understand way."

www.halleonardbooks.com

Miloco has a new recording studio on its website. Perry Vale Studios is based in Forest Hill, South East London, and has been designed to maximise the recording quality of guitar and drum-based music. It has a live area that can accommodate up to eight-piece bands, and three additional booths. Recording equipment is based around a Neve 5305 24 channel console.

www.miloco.co.uk

Corner Music Nashville has recently taken delivery of a Tango mixing console. The Australian-manufactured console uses Smart AV's patented ARC technology. "Tango is the best controller I have ever laid hands on," said Corner Music's Joel Dobbins. "The work flow is like having a full-size, large format console."

www.smartav.net

New Plymouth, UK, facility Beliefspace Studios has installed an Audient ASP4816. Studio Owner Stu Welsh wanted to "build a digital studio with an analogue heart." He tried the console at a workshop at the recording school where he teaches. "I knew Audient from its excellent reputation, and the ASP4816 fitted my needs exactly," said Welsh. "I prefer to work on the board, out of the computer... Personally, I feel that the tactile nature of mixing on a console, using your ears more than your eyes (something that I am guilty of when mixing on computer) puts you more 'in touch' with the music."

www.audient.com

JoeCo Captures Sting

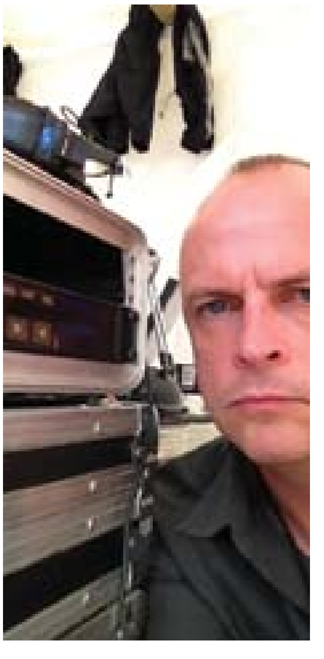
Sting's recent Henley Festival Show was recorded using a BlackBox BBR64-MADI Recorder, by engineer Donal Hodgson. Hodgson has recorded and mixed Sting for over a decade, and said: "I have been using Pro Tools in the studio, live and off stage, but just recently broke free of my comfort zone and decided to try JoeCo's BBR64-MADI Recorder. Sting has been using a Studer Vista for FOH so I was very confident that the A to D would be good and utilising the BlackBox meant I wouldn't need to hire a van to carry my usual rig to the show, or upset production by taking up valuable seating space with a couple of big racks. I was really impressed with the simplicity and ease of use and I really like the safety features built into the unit. All in all the whole process for recording the show was extremely easy."

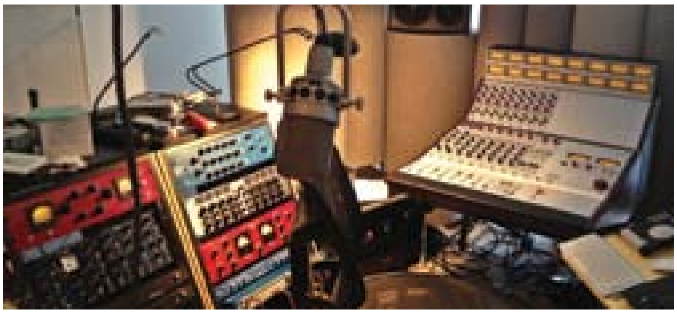
www.joeco.co.uk

SSL In The Wash-House

Wash-House Music, a record label specialising in rap, reggae and hip-hop, has completed a new studio complex in Oahu, Hawaii, featuring a Solid State Logic Duality SE console. Built to be the high-end recording division of its core business located in San Francisco, the property features a new building that houses Studio A, a room large enough for a six-piece band, as well as Control Room A, which features the Duality, outboard gear, and a 5.1 surround monitoring system. A pre-existing large house next to to the new construction has been converted so that all the rooms can be used as recording spaces. The entire complex is connected back to the Duality via fibre.

www.solidstatelogic.com





A 5088 For Florida

Engineer and musician Michael Cohen has installed the first eight-channel Rupert Neve Designs 5088 analogue mixing console, at his own Florida studio, where he specialises in jazz, acoustic, and singer-songwriter recording. The console has been customised with two stereo inputs, six mono inputs, two stereo groups, a master section, and ten 5051 Inductor EQ/Compressor modules. The desk is working with two tracking rooms at the studio, and Cohen commented: "It just sounds incredible," he says. "It's easily the best sounding desk I've heard. It can deliver the character of classic desks, especially with the inductor EQ's, but it still has a very modern sound. It also has practically no noise, and the level of detail is astonishing."

www.rupertneve.com

Olympian Contribution From Stagetec

This year's London Olympic Games has had plenty of broadcast support from Stagetec systems. The Australian Broadcast Company had its own studio area within the International Broadcast Centre, with three announcer booths and broadcast studios, each equipped with a DELEC oratis COM3 commentary terminal. All signals, both direct from the announcers and the international feeds from the host broadcast, were fed into a Stagetec Auratus console, with integration between the Nexus routing system and the console, and the DELEC oratis commentary system.

TPC Zurich Ag from Switzerland also had Stagetec systems in use during the games. TPC ran its own Nexus main control room in the IBC, distributing the incoming signals from the venues and commentary systems to the TPC edit suites and outgoing lines to the Zurich headquarters.

Overall, an estimated 70 Nexus Base Devices, 15 Nexus Star routers, eight Stagetec consoles, a DELEC commentary system, and a DELEC intercom system were in operation during the event.

www.stagetec.com

Ukraine Gets Outside

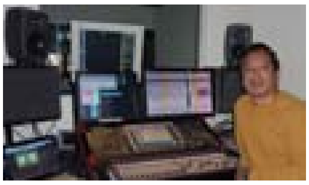
The first high-definition outside broadcast vehicle in the Ukraine to have been designed and equipped entirely by Ukrainian engineers has just commenced service. The 'Starbird' truck is a co-operative venture by the film production company Star Media and Engineer Service of Kiev. On board are intercom systems from RTS, including a Zeus III matrix and KP32CLD, KP12CLD, and DKP16CLD key-panels.

www.rtsintercoms.com

Audio Research Partners Axia

French software company Audio Research, makers of the Open Radio software suite, is the latest Axia Audio Software partner. Open Radio is used by broadcasters in French-speaking countries to provide complete management of radio broadcasting, including programming, traffic, music scheduling, and live and automated broadcasting. Now that it is an Axia Partner, Open Radio can offer their clients software solutions that include the Axia IP-Audio Driver, which allows computers to connect directly to Axia networks without the need for a PC sound card. Open Radio will also be able to provide broadcasters with integration services which include complete Axia AoIP console plus routing networks.

www.axiaaudio.com
www.audio-research.net



DiGiCo Down Under

Audio System Australia has recently added a DiGiCo SD9 and SD11 to its inventory. The company's primary client is Australia's Seven Network, for which it handles broadcast audio for both its Sunrise and The Morning Show programmes. Both consoles went to work immediately on the live broadcasts.

www.digico.org

Folk Sees Red

Red TX sent its Red II Outside Broadcast truck to Cambridge to handle the broadcast audio for the Cambridge Folk Festival last month. The company fed a 5.1 mix of the audio from the main stage to Visions for the Sky Arts broadcast, as well as preparing a separate stereo mix for BBC Radio 2.

www.red-tx.com

Lawo Plays Games

More than 50 Lawo systems were in use throughout the games. German public broadcasters ARD and ZDF both mixed audio in their Mobile Production Unit at the IBC on a mc^{2}90 and a mc^{2}56. The Finnish broadcaster, YLE, and SVT, the Swedish national broadcaster, were also Lawo equipped. Sapphires and Crystals were used by Estonian broadcaster ERR, while Austria's ORF used a mc^{2}66. Korea's KBS, Australian Channel 9//Foxtel and CTV from Canada all used Lawo consoles. The company says that the 'vast majority' of OB vans in use at the venues for production of all national and international feeds were equipped with Lawo mc^{2}66 consoles.

www.lawo.ca

TSL Gets Together With DK

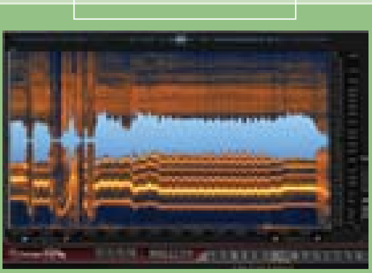
TSL Professional Products has announced a strategic technology partnership with DK-Technologies. "DK has demonstrated true innovation and reliability when it comes to bringing new audio test and measurement products to market. With our combined knowledge, we're looking to develop some exciting new ways of managing audio across the broadcast chain that will streamline present production needs while anticipating future trends," commented Chris Exelby, Managing Director of TSL. Andy Page, UK Director of DK-Technologies, said: "TSL has a formidable reputation in the audio monitoring space, and we are delighted to be sharing ideas with them."

www.tsl.co.uk

RTW IBC
Stand 8.E76

TM3
A little meter large on
LOUDNESS!

www.aspen-media.com
01296 681313
aspenmedia



Audio Restoration Improvement

iZotope has recently released RX 2 and RX 2 Advanced, updates to its audio repair software suites. Both enable the user to remove noise, hiss, buzz and hum, eliminate clicks and crackle, restore clipped audio, visually select and suppress unwanted sounds and resynthesize missing audio. RX 2 Advanced extends the standard version of RX 2 with new, specialised tools designed for audio professionals. New features include new de-noiser algorithms, improved de-click and new de-crackle, and freehand selection and magic wand tools. Advanced-only features include an adaptive de-noiser, deconstruct module, and third party plug-in support.
www.izotope.com

Subscriber Prize Draw

Congratulations to Mike Ryder from Godalming, Surrey, who is this month's winner of the AM subscriber draw. Each month throughout 2012, one randomly selected subscriber will win an sE 4400a microphone. To be entered into the draw, you must have a current digital or print subscription. To get one, go online to the address below. Good luck!
www.audiomedia.com/subscribe.html

Emmy Nominations Announced

The nominations for the 2012 Primetime Emmy Awards have been announced, with the results due to be revealed at the live awards ceremony on Sunday, September 23. Nominations in the category of Outstanding Sound Mixing For a Comedy or Drama Series (One Hour) include the teams who worked on *Breaking Bad, Downton Abbey, Game of Thrones, Person of Interest* and *Homeland*. The Outstanding Sound Mixing For a Miniseries or a Movie includes nominations for *American Horror Story, Game Change, Hatfields & McCoys, Hemingway & Gellhorn* and *Sherlock: A Scandal In Belgravia*. The *teams who worked on Entourage,* Modern Family, Nurse Jackie, Parks And Recreation and *30 Rock* received a nomination for Outstanding Sound Mixing For A Comedy or Drama Series (Half-Hour) And Animation. The category of Outstanding Sound Mixing For A Variety Series Or Special has nominations for those who mixed the 84th Annual Academy Awards, *ACM Presents: Lionel Richie and Friends In Concert, American Idol* and the 54th Annual Grammy Awards. Finally, nominations for Outstanding Sound Mixing For Non-Fiction Programming go to those who worked on *The Amazing Race, Deadliest Catch, Frozen Planet* and *George Harrison: Living In The Material World.*

London-based facility Hackenbacker is celebrating its nomination in the Outstanding Sound Mixing category for its work on series two of Carnival Films/Masterpiece's costume drama *Downton Abbey*. Gareth Neame, Carnival Films/NBC Universal's Executive Producer for *Downton Abbey* said: "I'm thrilled that, for the second year in a row, Hackenbacker has received an Emmy nomination for its outstanding work on *Downton Abbey.*" Nigel Heath, Founder and Director of Hackenbacker said: "Everyone at Hackenbacker worked very hard to ensure that the audio for Series Two met the same high standards as Series One, for which we won a BAFTA as well as an Emmy nomination."
www.emmys.tv
www.hackenbacker.com

Another nomination for Downton Abbey and the Hackenbacker team.

>

A Ribbon Revolution
...the rules have changed

Steve Levine

There's a revolution underway in recording studios and on live stages stretching far and wide across the UK and beyond.

Renowned producer and Chairman of the Music Producer's Guild, **Steve Levine** has added his voice to a chorus of unswerving praise aimed directly at Audio-Technica's revolutionary **AT4080** and **AT4081** Ribbon Microphones:

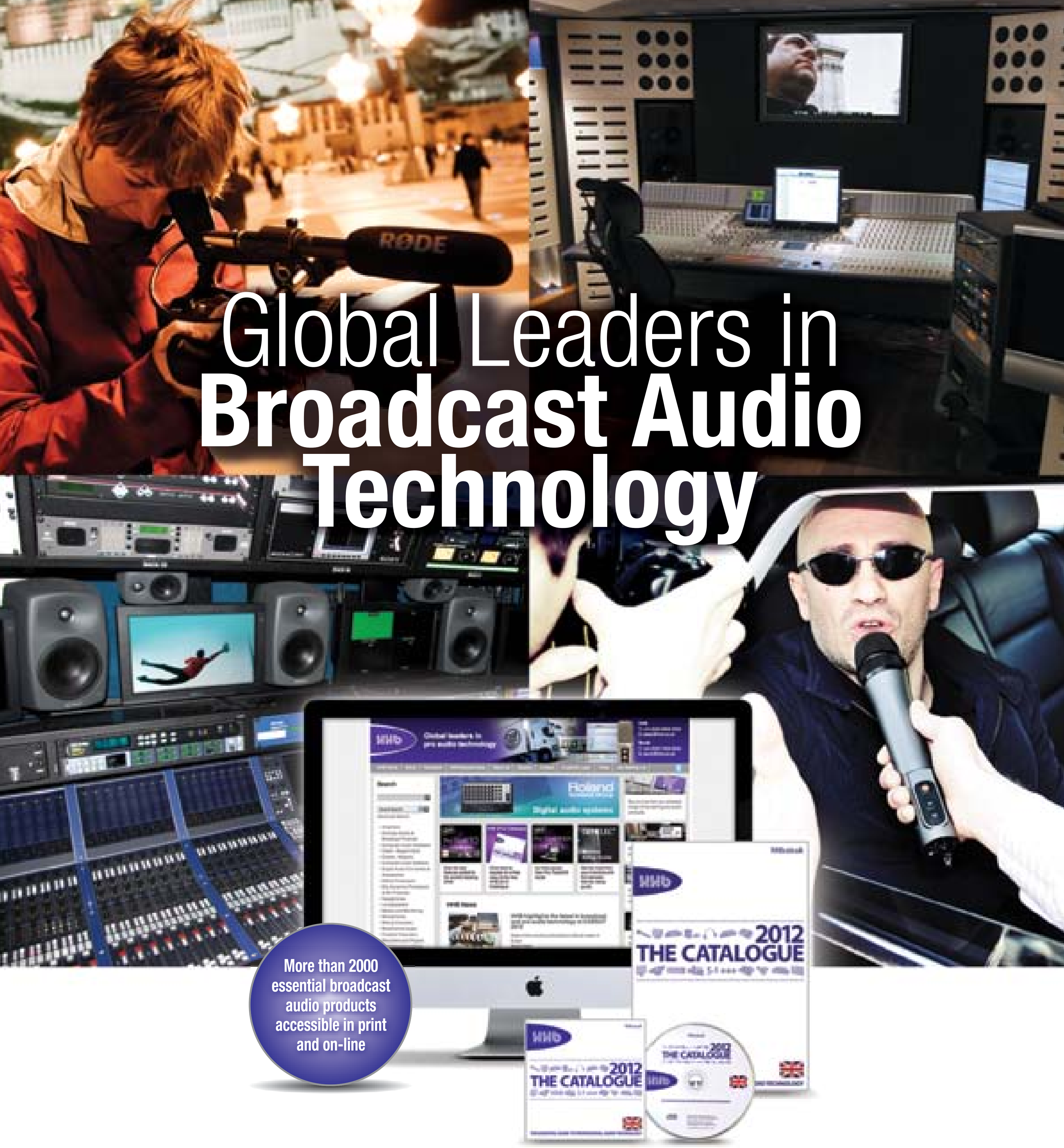
*"Using the **AT4080** for vocals, it sounds instantly like a late 50's, early 60's session, but without the noise. It has that thick warm vocal sound reminiscent of so many great vocals of the era...*

*...The **AT4081** is now my first call when recording guitar amps... they sound so sweet..."*

AT**4080** - AT**4081**

Connect with us...
facebook.com/AudioTechnicaUK
twitter.com/AudioTechnicaUK

audio-technica®
always listening
www.**audio-technica**.com



Global Leaders in **Broadcast Audio Technology**

More than 2000 essential broadcast audio products accessible in print and on-line

HHB
FIRST WE LISTEN

SCRUB
A DIVISION OF HHB

Broadcast • Post • TV • Radio

With 36 years of experience in broadcast sound, HHB Communications is firmly established as the audio technology supplier of choice for broadcasters and systems integrators worldwide. Our London headquarters is home to a knowledgable sales team with real-world broadcast experience, and Europe's largest independent pro audio technical facility, equipping HHB to offer valuable advice and levels of service and product support that other suppliers simply cannot match.

From a microphone to a complete studio, we look forward to assisting you with your next project.

Scrub (A division of HHB) – Located in Soho, focused on the audio technology needs of the post-production community.

HHB: T: +44 (0)20 8962 5000 E: sales@hhb.co.uk
Scrub: T: +44 (0)20 7025 6020 E: scrubsales@hhb.co.uk
www.hhb.co.uk

Neyrinck Goes AAX

Neyrinck's V-Mon post monitoring plug-in for Pro Tools has had an AAX upgrade. Founder Paul Neyrinck said of the development: "With the introduction of the new Pro Tools HDX cards our users needed to be able to run V-Mon on these new systems, so this is a welcome upgrade to our many post mixing clients who rely on V-Mon for their monitoring needs. V-Mon is a unique Pro Tools plug-in and porting to HDX was a big challenge. After a tremendous amount of optimisation, we were able to make V-Mon have the same features at 48 kHz sample rate as it does on TDM systems."

www.neyrinck.com

SurCode Goes Further

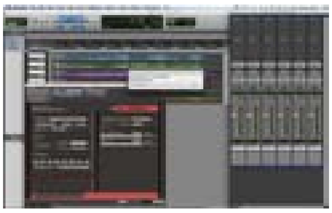
Minnetonka Audio Software has released a new 2.1 upgrade of its SurCode for the Dolby E family of software encoders and decoders. The new 2.1 version of SurCode now supports all of Avid's professional applications with enhanced Dolby E capabilities, while retaining complete interoperability with older Dolby E hardware. The SurCode for Dolby E suite supports Avid's Pro Tools, Media Composer, NewsCutter and Symphony product lines, with an AudioSuite encoder/decoder and an RTAS decoder. VST 2.4 is also supported on 32- and 64-bit, surround capable hosts including Nuendo, Fairlight, and Sequoia. One license will run all versions on any platform.

www.minnetonkaaudio.com

New York Tax Breaks

The Post New York Alliance has negotiated the Empire State Film Post Production Credit. The first legislation of its kind in the US, it is a fully-refundable 30% (35% for upstate NY) tax credit on post-production costs. The main determining factor is that a project must spend 75% of the post-production costs in New York.

www.postnewyork.org



White Mark Goes Universal

White Mark has completed a project for NBC Universal that involved designing two state of the art preview theatres at the company's new international headquarters in London. The move allowed the company to bring all of its technical facilities together. White Mark also designed a range of other technical facilities including audio editing and post-production suites.

www.whitemark.com

Sweet Screenings

The @Sweet_204 screening room in Culver City, California, recently upgraded its audio system with a 7.1 surround sound arrangement of JBL LSR6300 Series studio monitors. The system has been used on Walden Media projects such as *Won't Back Down* starring Viola Davis and Maggie Gylenhaal, and *Of Men and Mavericks* starring Johnny Weston and Gerard Butler.

www.jblpro.com

Forthcoming Events

September 6-11
IBC
Rai Centre, Amsterdam, Netherlands

September 9-12
PLASA
Earls Court, London, UK

October 26-29
133rd AES US
Moscone Centre, San Fransisco, US

November 13-15
Satis
Halle Freyssinett, Paris

November 14-15
BVE
North Manchester Central Arena

November 22-25
Tonmeister
Cologne Exhibition Centre

Jan 24-27
Namm
Anaheim Convention Centre, LA, US

Jan 29-31
ISE
Rai Centre, Amsterdam, Netherlands

Feb 4-6
Siel
Grande Halle de la Villette, Paris, France

Feb 26-28
BVE
London, ExCel, UK

ON AIR 24

Compact Broadcast Solution

ABC - AUSTRALIAN BROADCASTING CORPORATION
NEXUS

REFERENCES AROUND THE WOLD...

SALZBRENNER
STAGETEC
MEDIAGROUP
sales@stagetec.com
www.stagetec.com

STAGETEC

Studio-Quality Sound
Goes the Distance

Get the revered sound quality, deep Pro Tools® integration, and direct plug-in support of VENUE SC48, now with remote I/O flexibility. With the new VENUE SC48 Remote System—featuring the award-winning SC48 console and all-new VENUE Stage 48 remote box—you can position your I/O anywhere for optimal sound, eliminating cable clutter at front of house. And with fully redundant Ethernet AVB snake connectivity, you can bring the sound of the studio to any live performance—with the utmost reliability.

Got SC48?
Add remote flexibility to your setup with Stage 48, and create bigger mixes with the VENUE 3 software upgrade.

Stage 48

Learn more—www.avid.com/venue

© 2012 Avid Technology, Inc. All rights reserved. Product features, specifications, system requirements, and availability are subject to change without notice. Avid the Avid logo and Pro Tools are trademarks or registered trademarks of Avid Technology, Inc. or its subsidiaries in the United States and/or other countries. All other trademarks contained herein are the property of their respective owners.

Audio-Technica, the UK distributor for Allen & Heath mixing desks, has announced a series of training events featuring the new GLD and iLive systems. The certified training days are aimed at industry professionals, and are designed to impart working theoretical knowledge of the systems and also to allow hands-on experience with the mixers. The training series began with an event at Base Sound in Stroud on August 3, with six further sessions in locations around England planned for coming months. Full details can be found on the Audio-Technica website.
www.audio-technica.com

Russian PA company City Sound recently selected Allen & Heath's new GLD digital mixing system to manage BMW Group's national launch of its new generation 6 Series Gran Coupe. The launch was held on a specially constructed rooftop stage in downtown Moscow, and included an overview with a sound and light show demonstration of the car, then performances from a live band and a DJ. "We originally purchased the system for our smaller events," explained Alexander Kosarev, General Director of City Sound, "but our experiences have shown that we can rely on GLD to manage any event."
www.allen-heath.com

The European Long-Distance Triathlon Championships recently took place at the Roth Marathon in Germany. Over 200,000 spectators watched c.5,000 athletes swim 3.8 kilometres, followed by 180 kilometres on the bike, and a full 42.2 kilometre marathon. Sound reinforcement at the event was provided by Nuremberg-based Barowski AG, who installed a Dynacord and Electro-Voice system. The Electro-Voice system at the swimming leg included 12 x XLC 127 DVX, 12 x X12123, six V17s, and three N8000s. The Bayern 3-Band helped athletes and spectators celebrate in the market square after the race, with sound reinforcement provided by a Dynacord Cobra system made up of four Cobra FARs, four Cobra TOPs, 12 Cobra PWH, an N8000, and 10 CP3000S. An Electro-Voice XLD system was used course-side during the cycling stage.
www.dynacord.com

More than 200,000 people attended the 12th Viña Rock Native Art Festival in Villarrobledo, Albecete, over four days. Local company Acustica set up the sound installation, with two D.A.S systems on the two main stages, Legendario and Villarrobledo. The stages were set up side-by-side and used alternately, so the technicians decided to install the sound for both stages with a central formation that was shared by both stages. This meant that the Legendario stage left PA formation was also the right PA formation for the Villarrobledo stage. A total of 36 large D.A.S Aero 50 line array systems were used for the main PA, with 36 D.A.S LX-218A subwoofer units for low frequency reinforcement.
www.dasaudio.com

German football team Offenbach Kickers have moved into a new home – a €25million stadium in their native city of Hesse. The stadium houses a QSC Q-Sys integrated system, which controls all the audio in the stadium from the main operations centre, including the associated PA system. QSC PowerLight amps were recommissioned for use at their new home, with a new QSC CX302 power amp to power new fill-in loudspeakers in the far reaches of the stadium. The control centre in the main stand houses a Q-Sys Core 1000 processor, linked to other control rooms via a fibre-optic cable network.
www.qsc.com

A branch of the Hard Rock Cafe has opened in Budapest, in the Váci 1 shopping and entertainment centre. The building was once the Budapest Stock Exchange and is a designated UNESCO World Heritage Site. "The venue itself is a rather small area with a stage of approximately 12 square metres, and is set within a difficult acoustical environment," commented Geza Balogh from Interton. "Providing a loud and high quality sound without feedback under these circumstances was a challenging task... We used C7-TOP loudspeakers from the C-Series range, supported at the low end by a couple of B2-SUBS and all driven by D12 amplifiers. For the stage, MAX monitors were chosen; the coaxial design makes them extremely compact which was an important consideration in such a tight space, and yet they deliver excellent clarity as well as high feedback stability."
www.dbaudio.com

Beady Eye On Midas

Liam Gallagher's rock band Beady Eye recently played a gig supporting the Stone Roses at Manchester's Heaton Park, with a Midas PRO2 desk supplied FOH by Urban Audio Productions, and an on-stage PRO2 and monitor rig provided by Britannia Row.

Dan Lewis, FOH Sound Engineer for the band and Director of Urban Audio Productions, has previously used a Midas PRO6 for Beady Eye live shows. "I specifically chose to use the PRO2 for this performance – Beady Eye is not a complex band, but what it does require is the best quality signal possible," commented Lewis. "When I learned of the PRO2 system late last year I liked the compact surface layout, and the comprehensive feature set carried over from the other PRO series consoles. It immediately seemed to fit well with how I mix, feeling very intuitive and quick to use, and by no means least of all, it still retains the excellent Midas sound from the XL8 and XL4 before it."

For the Heaton Park show, both PRO2 consoles shared a pair of DL431 mic splitters with all the mic inputs taken from these units. On stage there was another 451 I/O box to allow some extra FX to be patched into the monitor board, but otherwise all I/O was taken care of by the onboard surface sockets. "I mainly use the onboard processing, only relying on a TCM2000 reverb for vocal reverb and an SPL Vitalizer to spice up the bass guitar a bit," said Lewis. "The onboard DN780 multi FX sorted out my drum reverb and a vocal slap delay, plus one instance of the stereo studio delay for vocal repeats. I was also using a Klark Teknik DN9650 Network Bridge to take 32 channels of audio to my laptop via a RME Madiface for multi-track recording and virtual soundcheck."
www.midasconsoles.com

Optocore In Tokyo

A brand new purpose-built musical theatre has opened in Tokyo, Japan – situated between the 11th and 16th floors of the new 34-storey Shibuya Hikarie glass tower. Signal distribution in the theatre is achieved via an Optocore fibre backbone, provided by Optocore's Japanese representatives, Acoustic Technical Laboratory (ATL). Yamaha Sound Systems specified an Optocore solution in its build proposal.

Theatre owners Tokyu Corporation specifically requested an optical fibre system because of the long distance transmission of dialogue and music between the 1972-seat auditorium, stage, and mixing control room, as well as data transmission between floors.

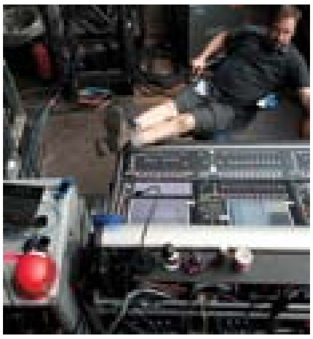
Yamaha SS constructed the digital architecture around nine Optocore DD32R-FX primary interfaces, connected to nine X6R-TP-16LO and nine X6R-TP-16MI converters.

The system outputs to a Meyer Sound M'elodie line array system, with 600-HP subs, and can be divided into three smaller systems.
www.optocore.com

DiGiCo Drives Springsteen

Bruce Springsteen's Wrecking Ball world tour is about to hit the US for a two-month stadium tour. Monitor mixes for the 18-piece band are split between engineers Monty Carlo and Troy Milner, who for this tour are using a pair of DiGiCo SD7s supplied with the Waves SoundGrid bundle. "...Our band has grown from nine musicians to 18 on this tour," explained Carlo. "With the occasional guest on top of that. We needed something that could handle a large number of inputs and a massive number of outputs, about 56 on each side of the stage. The DiGiCo SD7 was the only console I found that could accomplish what I was going to ask of it."

The engineers only receive a set list for the show five minutes prior to the start of the gig; the order changes from night to night and Springsteen also often changes the order during the show. "With the SD7s snapshot panel, I can order the list as Bruce intends to do the show, but then when he decides to jump to something off the list, it's as easy to get to as typing the first letter of the song."
www.digico.org

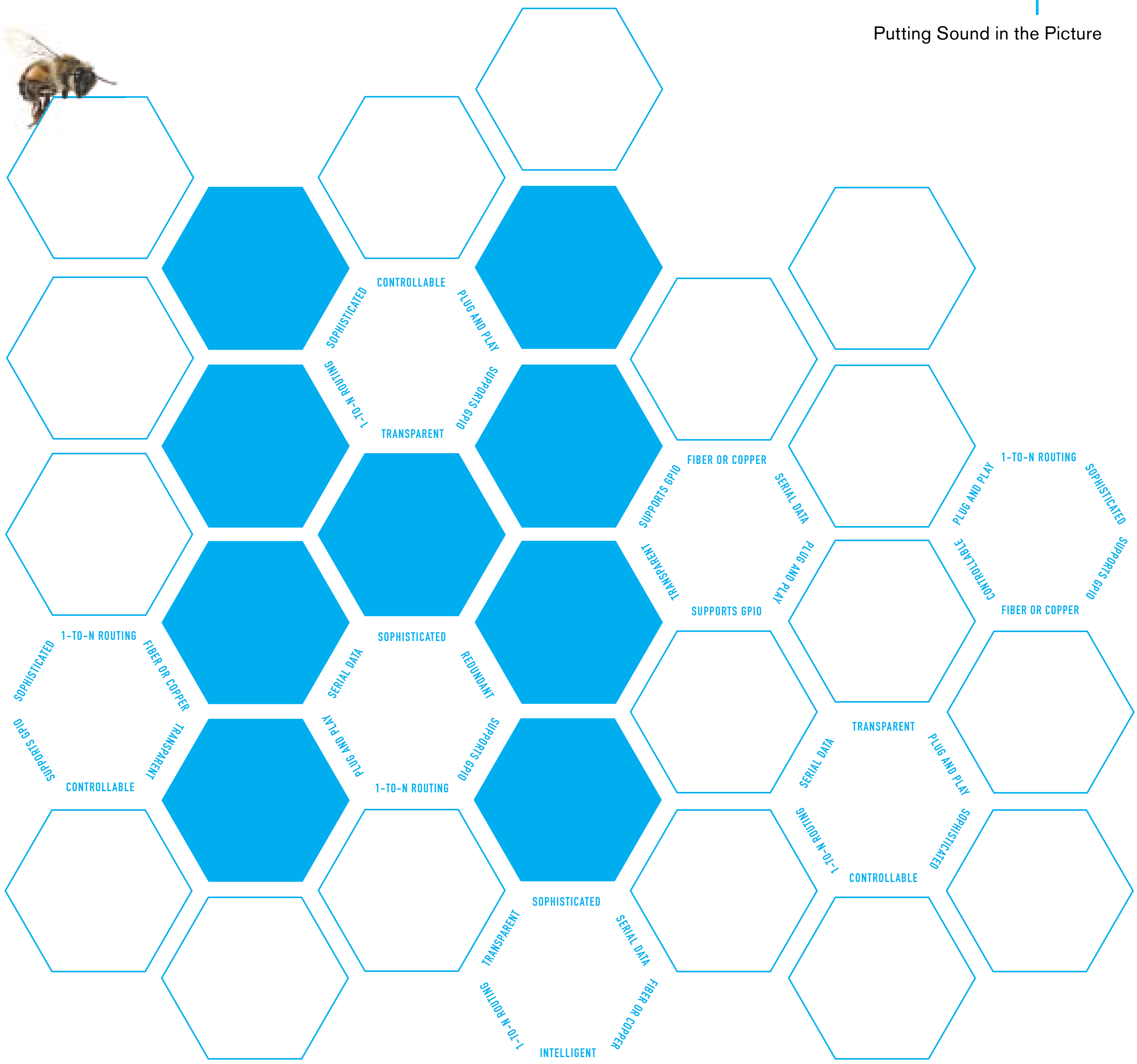


Sounding Out Sonisphere

A variety of big-name rock bands took part in the recent Sonisphere Amneville festival in France, with Adamson's Energia e15 system as the PA. Faith No More, Marilyn Manson, Wolfmother, and Machine Head were among the acts who performed on the main Apollo stage, which was set up inside an area. It was covered by 12 E15s per side with two Metrix 15-degree enclosures as down fill and 20 Y10 enclosures for each out fill array. A stereo centre fill was provided by two arrays of six 5-degree SpekTrix enclosures. On the ground, nine T-21 subs were stacked in columns of three per side, with an additional two T21s in the centre. There were also four risers erected in between the centre and side subs, with a single SpecTrix sub and two SpecTrix 5-degree enclosures. More Metrix cabinets were placed on the main T21 columns to provide fill, while on the stage two M15s with two stacked Metrix subs were used for line check. Another 24 M15s were used for stage monitoring, as well as two double 18-inch SpecTrix subwoofers for drum fill.
www.adamsonsystems.com

HYDRA2, FROM CALREC.
INTELLIGENTLY NETWORKED.

CALREC
Putting Sound in the Picture


CONTROLLABLE
PLUG AND PLAY
SUPPORTS GPIO
TRANSPARENT
1-TO-N ROUTING
SOPHISTICATED
FIBER OR COPPER
SERIAL DATA
PLUG AND PLAY
SUPPORTS GPIO
TRANSPARENT
SUPPORTS GPIO
1-TO-N ROUTING
SOPHISTICATED
SUPPORTS GPIO
FIBER OR COPPER
CONTROLLABLE
PLUG AND PLAY
1-TO-N ROUTING
FIBER OR COPPER
TRANSPARENT
CONTROLLABLE
SUPPORTS GPIO
SOPHISTICATED
SOPHISTICATED
REDUNDANT
SUPPORTS GPIO
1-TO-N ROUTING
PLUG AND PLAY
SERIAL DATA
TRANSPARENT
PLUG AND PLAY
SOPHISTICATED
CONTROLLABLE
1-TO-N ROUTING
SERIAL DATA
SOPHISTICATED
SERIAL DATA
FIBER OR COPPER
INTELLIGENT
1-TO-N ROUTING
TRANSPARENT

Hydra2 forms the routing backbone for both the Apollo and Artemis consoles.

These desks are just one type of client capable interfacing with Hydra2, which provides an enormous 8192² synchronous router at its core. A range of I/O boxes can be connected via high density 512 bi-directional copper or fiber connections, while mini-GBIC connectors keeps connections simple and installation easy.

Highly scalable, Hydra2's router is a TDM-type router, capable of 'one-to-many' routing and truly point-to-point. This allows for enormous networks with highly flexible topologies involving multiple routers, inputs/outputs, control rooms and studios. And with adaptive, intelligent software which automatically recognizes changes to the network and updates all its clients, it's also a very social network.

Hydra2. Minimizing installation overheads and maximizing audio routing flexibility.

Visit us at IBC
Stand 8.C58

Bluefin2™

calrec.com

HYDRA2

Export Or Die?

KEVIN HILTON looks at the importance of IBC to British manufacturers – and, the importance of British influence to IBC.

It's that time of year when a great proportion of the world's broadcast technology industry arrives in a Dutch city to see and discuss the latest advances, drink beer with two inches of foam on top, consume vast amounts of fries slathered in mayonnaise, and not at all indulge in ordering things other than coffee in the coffee shops.

Even after all this time in Amsterdam, the IBC does not feel like feel like a Dutch show. Which is how it should be. The clue is in the name – International Broadcasting Convention – so there shouldn't be any parochial element to the show.

That was left behind when the event moved from the UK in the early 1990s, although the British influence has sustained over the years. Many of those involved in organising and running IBC are Brits and the official language is English. This last point certainly rankled during the show's first few years in the Netherlands. A Dutch audio technology journalist of my acquaintance bemoaned this fact, wondering why his native tongue wasn't the lingua franca.

> **"…IBC has always been important for building up trade, but it is becoming even more so as companies look to expand into new territories, such as Russia, the Middle East, and Asia Pacific."**

On the flipside I overheard two American executives discussing the merits and otherwise of IBC; one complaint was the "language problem" at the show and around Amsterdam. As the comedian Eddie Izzard observed (and generalised), the Dutch speak at least three languages, notably English – and take drugs – while the British, and by extension the Americans, speak one language (just about) and don't (officially) take drugs.

Wide Area Network

There is a large UK contingent at IBC, including exhibitors, visitors, and press but in recent years I've begun to wonder about the importance of the UK to the show, not the importance of the show to the UK. There is a wide spread of nationalities represented, not just northern and central Europeans but from the eastern reaches of the continent, as well as Asian, Middle Eastern, and Far East companies.

US manufacturers are present and correct, but talking to some regular

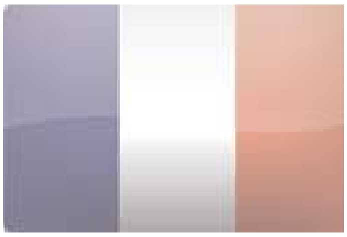
>

If you're serious about audio,
get serious about your cables.

Your sound can only be as good as your cables.
So connect your equipment with Mogami professional cables that combine uncompromised signal integrity with flexibility, reliability and true value.

MOGAMI
CABLE FOR LIFE
Find out more at mogami.co.uk

LIFETIME WARRANTY
Microphone
Guitar
Studio
AES/EBU
Multicore



IBC goers one gets the impression there are fewer American visitors, who of course have a similar forum right in their backyard with NAB. In the UK, BVE (and its northern offshoot) has become the national showcase for broadcast production technology the country has lacked for several years, but the industry still looks to IBC for a wider perspective.

While the exhibition provides this through the new products and technologies on display, supported by the conference sessions, the hard reality is that IBC is a marketplace. Broadcast engineers and facilities staff get the chance to see boxes and devices that otherwise would have not made it to UK distributors and dealers. Conversely British companies – big, small, new and established alike – have access to developing markets through visitors coming from Russia, central Europe, and the Middle East.

Although the UK broadcast technology market is still important, it is both established and well exploited. Many TV and radio companies have preferred suppliers or work with systems integrator that similarly have links to specific manufacturers. Breaking through this is a daunting task for smaller domestic developers, let alone overseas companies with limited marketing resources.

Shipping Forecast

Even well-known manufacturers are now looking further afield. While not abandoning the home market completely, there is the realisation that there are limitations involved in selling to the UK, particularly as the broadcast sector consolidates through mergers or streamlining of operations.

Calrec Audio is owned by the Japanese consortium D&M Holdings, but it is still staunchly and independently British. The home market in live broadcasting, both studios and outside broadcast, is still a significant part of its business, but in recent years the company has been looking beyond national borders to expand sales.

Russia has been seen as a potentially viable area for western suppliers, and Calrec recently made its first sale into the country with two 48-channel Artemis Beam consoles sold to Television Technical Centre Ostankino in Moscow for 5.1 production work by satellite subscription service broadcaster NTV-PLUS.

The Artemis desks are networked using Calrec's Hydra2 system, allowing either console to work with any I/O on the network. NTV-PLUS broadcasts sport, news, films, documentaries, and children's programmes, and has an HD channel as well as SD services. The broadcaster also hired three more Artemis consoles for its coverage of the London Olympics.

A Calrec spokesman says IBC has always been important for building up trade, but it is becoming even more so as companies look to expand into new territories, such as Russia, the Middle East, and Asia Pacific.

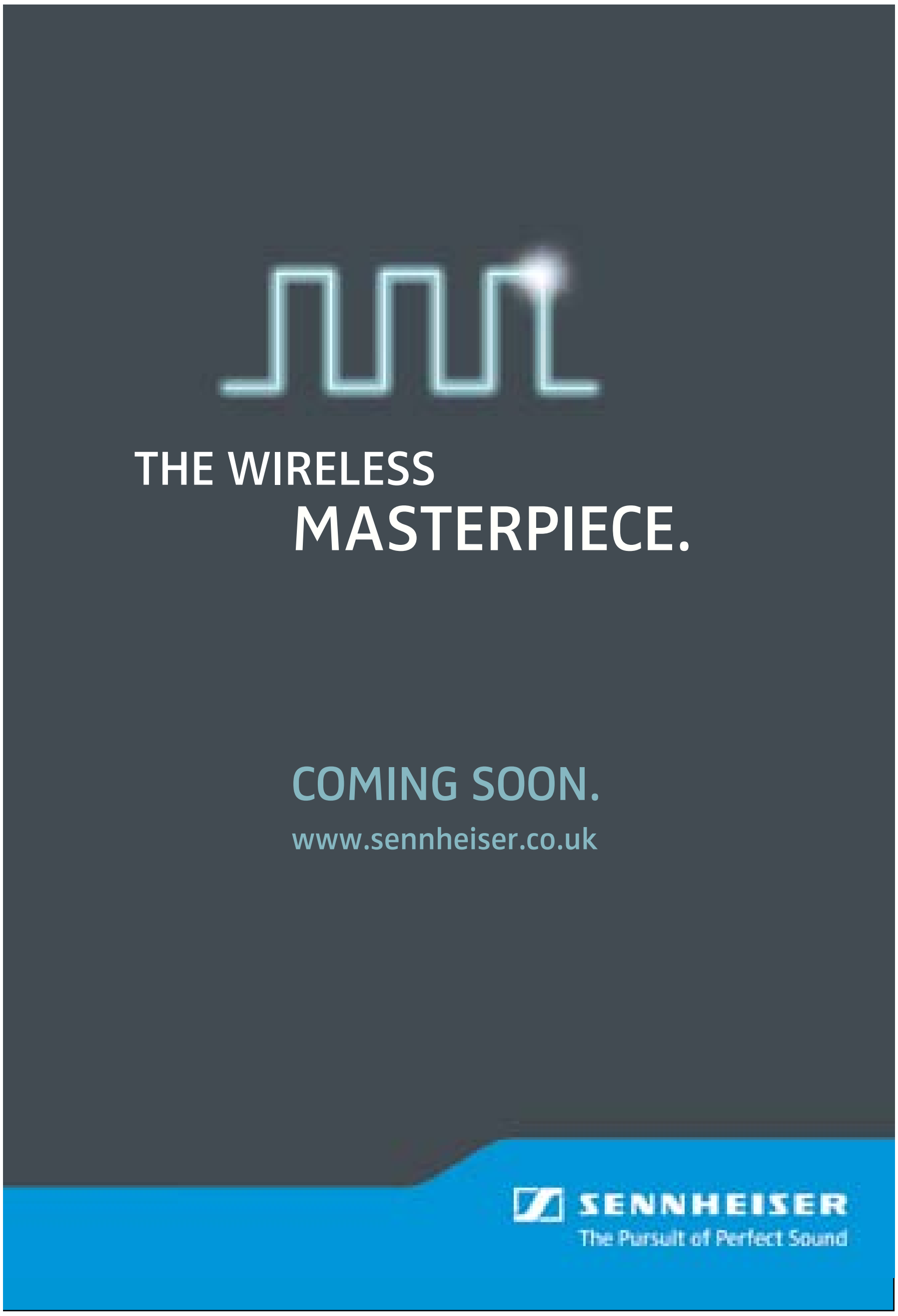
Other British manufacturers, such as Trilogy Communications, are also looking further afield, while at the same time keeping an eye out for possible business at home. Which echoes the wisdom of the slogan used by the Labour Party during the 1945-46 election campaign, "We must export or die".

It's rather dramatic and portentous but makes a point, one that can be seen as indirectly heeded in the UK Pavilion during this year's IBC. This is showcasing a variety of British companies, both recent arrivals on the scene and old stagers, including Canford, DiGiCo (a newcomer to broadcast), Emotion Systems, Glensound, Murraypro, Phabrix, and Sonifex.

"The hard reality is that IBC is a marketplace."

Doh.

The UK certainly needs IBC as a forum, but the exhibition itself is still benefiting from the influence of the UK in terms of innovation and manufacturing. And if a British show hadn't made him an unlikely TV star, would the IBC have chosen Will.i.am to deliver the keynote speech this year?



THE WIRELESS
MASTERPIECE.

COMING SOON.
www.sennheiser.co.uk

SENNHEISER
The Pursuit of Perfect Sound

Native Speakers

> “Music sales have plummeted 80 percent over the last decade”

As has been widely reported, Spain’s economy is not in the best of health – and not surprisingly, this is reflected in the well-being of the country’s music industries.

The economy of Spain is the twelfth-largest economy in the world, the fifth-largest in Europe, and the fourth-largest in the Eurozone, based on nominal GDP comparisons.

Between 2000 and 2008 Spain’s economy had been credited with having avoided the virtual zero growth rate of some of its largest partners in the EU. Between 2008 and 2012 this process was rapidly reversed, characterised by the fact that almost a quarter of Spain’s workforce is currently unemployed.

Music sales have plummeted 80 percent over the last decade, especially since the economic crisis began in 2008. Meanwhile, concert receipts, which until the crisis partially offset falling records sales, are having their worst year in history, with estimates anticipating at least an 85 percent tumble in 2012 from 2009.

“There is no sector hurting so much in this crisis as the music industry. We are facing our worst year in half a century, a complete catastrophe,” Emilio Santamaria, President of ARTE, an umbrella group representing 80 percent of the concert industry in Spain, told Billboard magazine. “Dozens of companies have already folded, but it’s just getting worse.”

Not quite so alarmist, studio operator Pete Ware notes, “Spain is in financial crisis and my tiny bit of the industry is of course adversely affected. Entertainers along the coast are suffering, which knocks on. Also the decline of the traditional record company and erosion of markets to unpaid downloading means that I have to run a tight operation and produce good music with dwindling budgets.”

And Pepe Loeches suggests, “It’s all too easy to blame piracy. Has anyone wondered why re-releases from past decades continue to sell well? Something to do with the quality of the music perhaps?”

FESTIVAL

Sónar 2012 Electronic Extravaganza

Sónar is the festival of advanced music and multimedia art that has taken place at various venues in Barcelona in the third week of June since 1994.

Sónar 2012 once again made Barcelona the world capital of electronic culture: the festival presented more than 150 elements in its programme, including music, exhibitions, screenings, and activities for professionals based around the technology applied to artistic creation.

The music line-up included essential classics, experimentalists with “a unique profile and an extensive representation of the new forms of house, contemporary electronic pop, and the multiple derivations of bass music”. Other highlights included carefully staged audiovisual shows.

SonarPro, the area of the festival dedicated to professionals in the creative industries, expanded and specialised its contents, and focused on the impact of technology on all areas of the music and audiovisual industry. This year, SonarPro played host to nearly 2,500 professionals from 900 companies from 50 countries.

Sónar is one of the cultural events with the highest international profile in Spain. This year’s event was covered by more than 850 journalists from 40 countries and attended by punters from more than 80 countries, occupying 90% of Barcelona’s hotel facilities.

www.sonar.es

RECORDING STUDIO

The Parrothouse

The Parrothouse is located near the lovely hill-town of Álora in Andalucia, Southern Spain. It is about 30 minutes' drive from Málaga airport. There is also a local train service linking Álora to Málaga and Fuengirola.

The Parrothouse is owned and operated by London-born musician and producer Pete Ware, and offers a full range of production services – recording, mixing, mastering, and more.

"The recording studio side of things is and has for many years been secondary to my music production efforts," says Ware. "I think of my studio set-up more as a workshop, or potting shed – there primarily to serve my purpose. The mingling of skills traditionally ascribed to musician/producer/engineer has been paramount for me as I have assumed all three areas, which has enabled me to offer competitive services in an industry that has changed hugely over my 35 years..."

On mixing, Ware states, "Today many people choose to make music at home rather than use commercial recording studios. Sometimes though, your work may need a little more help than limited resources can provide. Within our acoustically controlled environment with accurate monitoring, vast sound library, specialist skills, tools and outboard equipment, we can help your recording reach its full potential."

And on mastering: "With professional software (Sony CD Architect), some smart plug-ins and a controlled listening environment, oh – and a good pair of ears, we can give your music that extra dimension that mastering provides, putting you in direct competition with the best mastering around. Additionally, as both technology and our expectations change we are finding that older recordings will often benefit from remastering."

It's been busy year so far at Parrothouse, which attracts both international and local clientele. Hazell Dean has been back to visit to work on some more titles for Energise Records and is set to visit again soon. Alan Fullard's album is in progress, as is an album for Scott Morris and friends.

"There is a lot of film music in the air – including two main movie themes and also a set of mixes for Babbu Maan," adds Ware. "Other recent visitors include the lovely Helena Paul and of course studio regular extra-ordinaire Sukhpal Sukh has been around, banging out more of those bhangra biggies."

www.parrothouse.co.uk

Contact pete@parrothouse.co.uk

PRODUCER

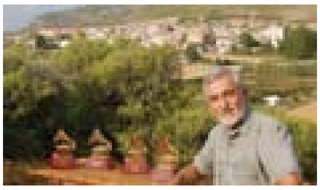
Pepe Loeches

Pepe Loeches is a musician, sound engineer, music producer, and noted beekeeper. As a musician he has worked with artists across the musical spectrum including Paul McCartney, Alfredo Kraus, Miguel Rios, Maria Dolores Pradera, José Luis Perales, Bebo Valdes and El Cigala, Pablo Milanes, Joaquin Sabina, Pepe de Lucía or Paco de Lucia, and has won five Latin Grammy Awards.

Loeches began working for Hispavox in 1969 and continued his training at Pye Studios in London in the 1970s in Pye Records in London. He went on to work at Trident Studios and Abbey Road Studios.

He returned to Spain in 1975, worked for Kirios and Eurosonic, and founded Musigrama Studios in Madrid with Joaquin Cobos. Since then he has collaborated with and produced records for numerous musicians and performed music for films. He has won five Latin Grammy awards.

"I do some recording projects, but only the ones I know I will enjoy, otherwise I'm not interested."



Having sold Musigrama, Loeches reports, "I'm living in the countryside keeping honey bees and producing the best honey of the world from La Alcarria, and from time to time, I do some recording projects, but only the ones I know I will enjoy, otherwise I'm not interested."

VENUE

Palau De Les Arts Reina Sofia

Palau de les Arts Reina Sofía in Valencia is an opera house and cultural centre that opened in October 2005; its first opera staging was of Beethoven's Fidelio on 25 October 2006.

Administration of the company is under the leadership of Helga Schmidt, formerly of London's Royal Opera House (from 1973 to 1981). Schmidt has attracted some major artists to be involved with the Palau. Among them is Zubin Mehta, who leads an annual music and opera festival, the Festival del Mediterráneo, which began in 2007.

The Queen Sofía company promotes symphonic concerts, opera galas, and vocal recitals. The company also hosts the Centre de Perfeccionament Plácido Domingo, an advanced training programme of international draw for young opera artists, named in honour of Plácido Domingo.

The Sala Principal (Main Hall) seats 1,700 people and functions primarily for opera, but it may be converted for dance and other performing arts. The hall has four tiers of seating, a stage equipped with all major facilities, and the third largest orchestra pit in the world, being capable of housing 120 musicians.

The building suffered a number of incidents after its opening, which hampered initial productions. The first of these was the collapse of the main stage platform while it was bearing the complete set of Jonathan Miller's production of Don Giovanni in December 2006.

The Auditorium is located above the Main Hall. It seats 1,500 people and its facilities include sound and video systems capable of projecting displays of events taking place in venues below it. Officially given to the managing trust during the 2007–2008 season, it is a spectacular venue with multiple uses, from classical music concerts to political rallies.

www.lesarts.com

Media Viewer

Broadcasting in Spain has witnessed a significant expansion in recent years with the emergence of new commercial operators and the launch of digital services. The cable and satellite markets have grown, and Spain completed the switchover to digital terrestrial TV (DTT) broadcasting in 2010. Home-produced dramas, reality shows, and long-running "telenovelas" are staple fare on primetime TV.

Public radio and TV are run by RadioTelevision Espanola (RTVE). As well as public and commercial national TV networks, there are 13 regional stations backed by regional governments and many local stations.

Multi-channel TV is offered by the satellite platform Digital Plus.

Television

TVE – public, services include national networks La Primera and La 2, satellite-delivered TVE Internacional, rolling news channel 24 Horas

Tele Cinco – national, commercial

Antena 3 – national, commercial

Cuatro – national, commercial, formerly Canal+ Espana

Radio

RNE – public, services include speech network Radio 1, cultural network Radio Clasica, youth-oriented Radio 3, news station Radio 5 Todo Noticias

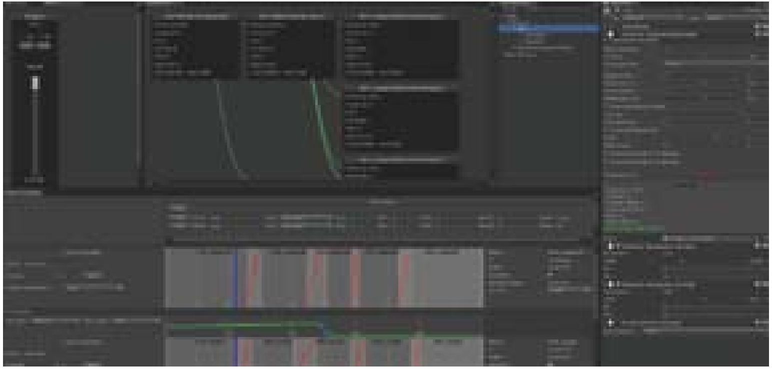
Cadena SER – commercial, operates more than 50 national, regional stations

Onda Cero – commercial

Cadena COPE – church-controlled

Punto Radio – commercial

Tazman Brings Fabric To Unity



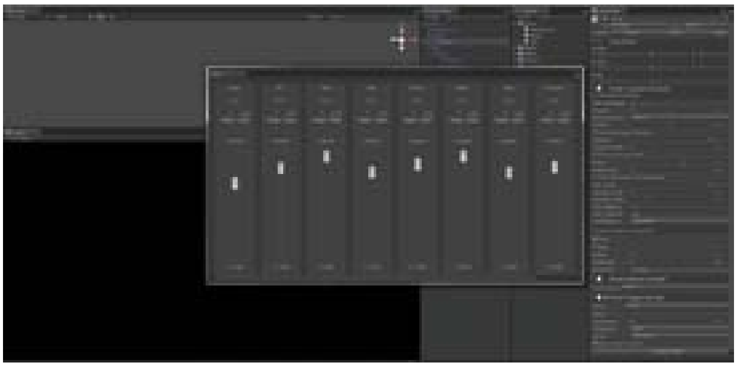
Ex-Black Rock audio programmer, Anastasios Brakis, has created and released an audio tool set for popular game engine Unity 3D called Fabric, designed to extend Unity's audio functionality and provide an extensive set of high-level audio components to facilitate the creation of complex audio behaviours.

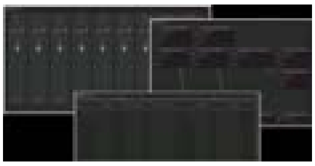
According to Brakis, Fabric 'components' provide the building blocks that allow audio designers to create sophisticated designs within Unity's object based hierarchical structure. An Audio Component is the simplest component that extends Unity's audio source functionality, whilst a Random Component triggers a series of components in a random order and a Sequence Component triggers a series of components defined by a play list. A Switch Component determines which component to trigger from an option set by the game, a Group Component controls the volume and pitch properties of all the sounds in its hierarchy, while a Timeline Component is a "powerful time-line based multi-track component allowing layering and cross-fading of a number of sounds together, as well as linking the time-line and volume/pitch curves with game parameters". There are also VolumeMeter and SideChain Components, as well as an event system, a custom user interface allowing event log view, mixer view, and graph view.

> "Fabric provides the same creative flexibility and power as any other middleware solution available, except it's all done within Unity"

According to one glowing testimonial at Fabric's website it "provides the same creative flexibility and power as any other middleware solution currently available, except it's all done within Unity (which means it allows for seamless integration into any supported Unity platforms)" and continues: "I cannot recommend this product enough for Unity developers, especially those looking to incorporate high quality adaptive audio into their projects."

For more information visit: www.tazman-audio.co.uk





Take both a game engine and audio middleware into the shower? Not with Unity. It now has a new audio toolset called Fabric built in.

RICHMOND
FILM
SERVICES

Tel. 020 8940 6077
Fax. 020 8948 6326

NEW FROM AUDIOROOT

eSMART BG-D
Power adaptor for
lithium battery
with fuel gauge

eSMART Li-37Wh / 89Wh
Smart lithium batteries

UK Distributors

www.richmondfilmservices.co.uk

Generative Music For Kid's Department

Earcom's Paul Weir believes in generative music – or, as he prefers, 'emergent music' – randomised re-play of very small musical/sound components according to a set of pre-defined rules that can produce a flexible soundscape. It's a technique that's proved very useful in his videogame projects. Weir: "… because it's real-time, you can control and construct it on-the-fly, building musical intensity and even changing tempo and key according to a map of allowed relationships. It can respond to game variables and locations without the player ever being conscious of the organic changes. It works best as 'ambient' background material. The more granular the components, the better. A lot of the common control elements are the same as with sound effects – shaping how often sounds from a group will play, their density, pan, and volume. Sitting on top are the more musical controllers such as key and tempo. Simple musical rules can create surprisingly pleasing musical pieces if fed with the right sounds."

Interestingly he has also realised the potential for the same approach in other real-world commercial applications from bank to airport whilst working on audio branding projects with *The Sound Agency*.

Weir: "There's an obvious crossover between generative and ambient music, and *The Sound Agency's* CEO Julian Treasure has a strong interest in the psychoacoustic effects of music. The concept of generative was seen as esoteric a few years ago but now we sit in the boardrooms of major brands happily talking about it as an entirely viable, valid option."

The Sound Agency usually carries out an 'acoustic audit' of a venue first, then will offer acoustic treatment suggestions often along with how new sound can be added to the space to make the consumer experience more pleasurable and relaxing.

"Adding a generative soundscape via our Ambifier system has the advantage that we can respond to real world inputs, for instance, customer noise level, or market research feedback. In some instances, you might want the soundscape to change according to time of day or the number of people in the space. Our technology is networked so we can make changes remotely."

According to Weir, the children's department of world-renowned London store, *Harrods,* is the latest venue to play host to the *Ambifier* system. From early in the discussion when the new models to form the installation were being discussed, it was decided to explore the possibilities of bespoke sound design for each part of the space.

"we can respond to real world inputs,"
Paul Weir

"It's actually very similar to sound design for a game but with the added benefit that we can keep evolving and adapting it over time. Basically, it's going to sound fun – like you're part of the experience of say, being on a spaceship bridge with all the computers going off and the drones and so on – plus musical content. We can install it, see how it feels, and because it's 'unfinished' we can adapt and tweak it. We'll change the density of it over the course of the day depending on footfall. It's the shaping of the experience that's key. It's not going to sound like any experience you've heard in a shop.

"Actually, it's going to sound rather like a videogame."

aes PRO·AUDIO

Meet the all new
AES Pro Audio
RPN1101
NEVE VR Channel in a box

The Channel in a Box (CIB) is based around the Input & Dynamics sub-assembly and the EQ & Insert sub-assembly from a NEVE VR channel. The CIB comprises a 1U high enclosure with a depth of 300mm (excluding connectors and control knobs) and an internal power supply.

"The objective was to design a product that maximised the facilities that are available on the VR sub-assemblies... This objective has not only been achieved, but we feel, exceeded"

want to find out more about what's under the covers?

aes PRO·AUDIO

www.aesproaudio.com · +44 (0)1932 873 672 · aesaudio@intonet.co.uk

All Rosy At Red TX?

Red TX is no longer just about recording trucks. It's more about owning a recording studio that just happens to be blessed with wheels. A sustained economic slump in the music industries has put pay to the fortunes of the ultra-specialised service companies. However, Pinewood, UK-based Red TX has managed to stay ahead of the game, and even recently managed to refurbish its trucks (Red II last year, and Red 1 in May this year), including a whole new room for clients and collaborators.

Ian Dyckhoff (partner in the Red TX business with Tim Summerhayes) says that, in real terms, the cost of hiring a recording truck has come down by about half. And in the same period, its overheads mostly increased. Certain things are cheaper, of course. Digital storage and recording is much less costly then running tape machines and buying tape stock. However, says Dyckhoff, "Grown-up desks are still expensive, and the cost of keeping a truck on the road just goes up and up."

By way of example, Dyckhoff recalls that in his early days in the Manor recording trucks it was not uncommon to take the tractor (engine/cab) section of the truck home if no lift was available. Now, he has costed a trip to his home (very local) with the Red TX tractor at around GB£100.

Multi-Tasking Mixers

Also, even years ago, Dyckhoff saw the writing was on the wall for recording studios. "They've all been in decline for a long time, and unless you diversify you're not going to survive.

>

LIVE RECORDING? NO COMPUTER – NO WORRIES

BLACKBOX RECORDER
a multi-track for the 21st century

- Capture live multi-track audio without a computer.
- Unbalanced/balanced analogue, AES/EBU, Lightpipe, MADI and Dante digital versions available.
- Can attach to any live console to provide virtual soundchecking.
- Records onto a regular USB2 drive, or USB Flash drive.
- Fail safe features for secure audio capture.
- USB drive plugs straight into workstation for instant editing. No wasted file transfer time.
- Multiple units can be stacked for larger recordings.
- Dedicated multi-channel playback option available.

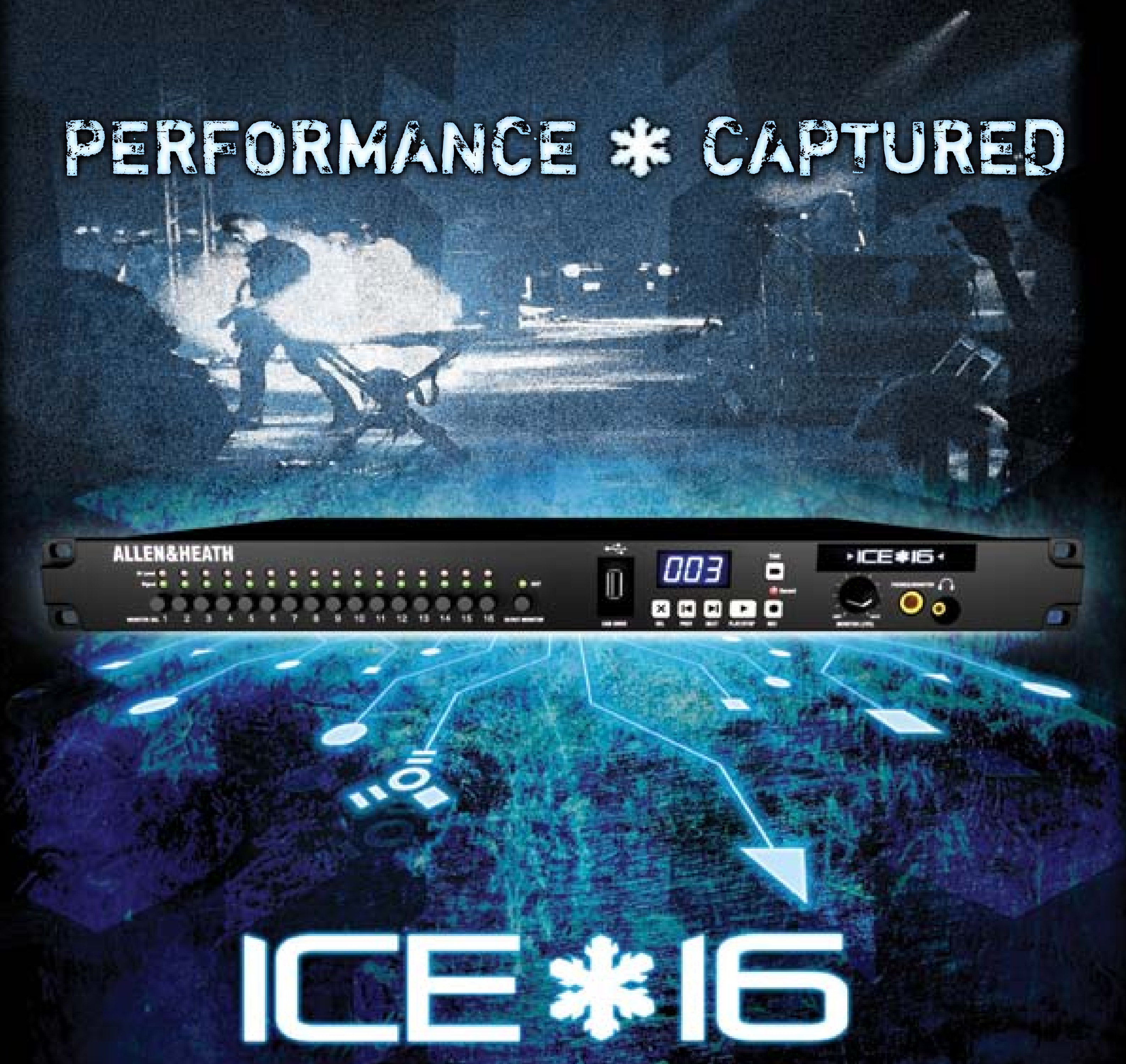
LIVE MULTI-CHANNEL AUDIO CAPTURE FOR
BROADCAST • FILM AND TV SOUND • POST PRODUCTION • LIVE PERFORMANCE

www.joeco.co.uk

JoeCo

SEE THE BLACKBOX AT
IBC 2012 - Amsterdam HALL 8.E97. 7-11 SEPTEMBER
PLASA 2012 - London HALL 1-J16. 9-12 SEPTEMBER

JoeCo Limited
Tel: +44 (0) 1223 911 000 info@joeco.co.uk
For details of your local distributor,
please visit the sales section at www.joeco.co.uk



16CH MULTITRACK RECORDER + USB / FIREWIRE INTERFACE

RECORD DIRECT TO USB DRIVE • DIGITAL MULTITRACK FROM AN ANALOGUE DESK • 16 X16 INTERFACE

- 16 ANALOGUE INPUTS (1/4" TRS JACKS)
- 16 ANALOGUE OUTPUTS (RCA CONNECTORS)
- FRONT USB SOCKET FOR QUICK CAPTURING TO USB MASS STORAGE DEVICES
- HYBRID FIREWIRE (IEEE1394) / USB2.0 16X16 AUDIO INTERFACE
- INDUSTRY STANDARD, BROADCAST WAV FILE FORMAT
- UP TO 6 HOURS OF 16 CHANNEL AUDIO ON A 32GB USB STICK
- SIGNAL PRESENT AND PEAK LED METERING ON EACH CHANNEL

ICE-16 makes multitrack recording easy. Forget all that fiddling around at the back of clunky HD recorders or messing about with soundcard drivers. ICE-16 lets you capture a high quality 16 track digital recording straight to a USB drive.

ICE-16 is also a powerful 16x16 audio interface capable of studio quality recording over high-speed USB or FireWire, so you can record and play back multichannel audio with or without your computer.

Whether it's a live band, a studio session, a conference or a rehearsal, ICE-16 captures the performance.

WWW.ALLEN-HEATH.COM ALLENHEATHOFFICIAL ALLEN_HEATH

ALLEN&HEATH

> So rather than just rocking up and doing a recording and the recording going off somewhere else to be mixed, we had to have a bigger slice of the cake. We can now do every stage. We can do the recording, the mixing, the dubbing, the mastering – every stage of the cycle we can do in-house. We've got the kit and the expertise to do that."

Dyckhoff estimates that in the early days, maybe ten percent of a recording truck's workload was broadcast. Nowadays, it's more like 80 percent. "The rest of it is post production, or remixing for DVDs or bluRays, and so on."

> **"Rather than just rocking up and doing a recording and the recording going off somewhere else to be mixed, we had to have a bigger slice of the cake."**
>
> Ian Dyckhoff, Director of Red TX

In the broadcast environment, Red TX is often there as a quiet technical space. "On an OB scanner, many of the consoles are big enough now to do recordings," says Dyckhoff. However, in that tiny sound room you've got all the comms going on, and all sorts of other stuff. Trying to concentrate and do a music mix is really very difficult because there are so many other noises, and the acoustics might not be what you'd want them to be. It's not the ideal environment to be mixing in, especially if you're doing a lot of bands. It's a lot easier, if you're on a big show, to hire an audio facility for of all the music content. All of the presentation content gets looked after in the TV scanner – he does all the comms and distribution to VT and any links coming in. We just feed the music in. It works very well."

Altogether Now

This idea can be taken to another level, and in the refurbishment of Red II, Red TX has incorporated a new, fully isolated room at the rear of the truck, with uses that include production office, overdub room, and video gallery. That last one has been developed in collaboration with One Box Television – a company that specialises in portable HD broadcast-standard production facilities for multi-camera shoots.

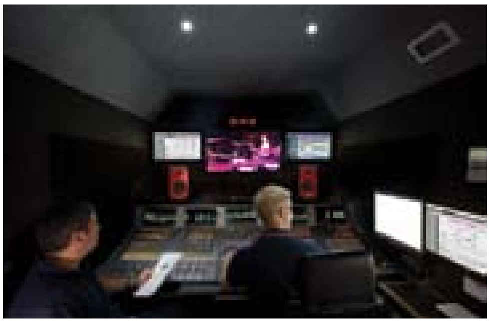
One of the first things that people tell you when they phone up and ask for a quote is 'we haven't got any money' and 'the budget's gone down since the last time we did this'. So one way to make real savings is on the most expensive part of the shoot – the video part of the OB – the OB Scanner. Richard Stevenson from OneBox has put together a rig that is very, very condensed and works very well.

One Box Television can run up to 16 cameras from its temporary gallery in RED II. The whole room can be given over to production, and One Box Television can house vision control in its own vehicle, if required.

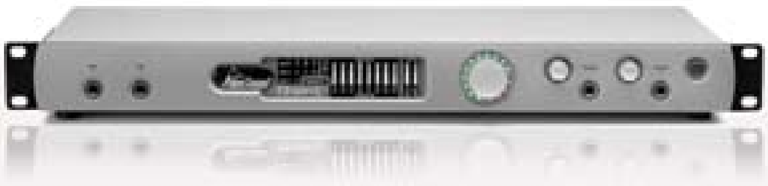
Red TX has worked with One Box on this set-up quite a few times now, and One Box is fairly local to the RED TX parking spaces at Pinewood studios, so it makes sense to enter into a more formal collaboration. However, the arrangement isn't an exclusive one. In any case, this is a turn around. It puts audio back into the budget – or at least, takes a small step towards re-balancing the budget in the audio direction. "Sound has always been the poor relation – around 10 percent of the budget," says Dyckhoff. "Of course, as video costs come down we get squeezed still further. It gets to the point where you can't operate grown up facilities on any amount less... It's finding another way of apportioning this pot of money in a more sensible way that allows us to continue to try and do what we think is the best way of doing something – doing it properly."

Also, having the truck and its facilities on hand is useful for many jobs where artist approval is required at the time of recording – simply because of the difficulty of getting that approval once the artist has left the building. A Red TX truck is a fully isolated mix suite with ample space for a band to come after the show to check and, if necessary, tweak, a performance.

Roll on Red TX.



www.oneboxtelevision.co.uk
w **www.red-tx.com**



Clearly creative.

The **Prism Sound Orpheus FireWire interface** has clearly established itself as the only solution for those looking for **unparalleled** sound quality, reliability, flexibility and peace of mind which can only come from over 25 years of leading audio expertise. Prism Sound's **state-of-the-art** clock technology and **ultra-clean** analogue signal paths provide you with the clarity to translate your creativity as you intended. Orpheus's compatibility with the latest **64bit** operating systems from Windows and Mac OS X as well as **Thunderbolt*** support ensures seamless DAW integration, both now and in the future.

Clearly Prism Sound. Clearly creative.

PrismSound
CLEAR AS

#clearlycreative

sales@prismsound.com | www.prismsound.com | UK +44 (0)1353 648888 | USA +1 973 983 9577

*adapter required

FOCAL
Beryllium

Focus Mode

- Two monitors in one.

Focal Professional SM9

Representing a complete monitoring solution for most applications, the SM9 is the only studio monitor to give you two monitors in one cabinet (well, three if you include the Passive Radiator which, largely, negates the need of a subwoofer). In its normal state, the SM9 is a 3-way system, virtually flat from 30Hz - 40kHz, but, in Focal's patented 'Focus' mode, it becomes a 2-way reference monitor with a frequency response of 90Hz - 20kHz. Now that's innovation.

Watch the video!

Visit www.focalprofessional.com to find out why you need an inverted dome Beryllium tweeter

SCV LONDON

www.scvlondon.co.uk Distributed by SCV London: Call 020 8418 1470 for your nearest dealer

FOCAL
PROFESSIONAL

> "We're not pretending we are a Martin or a [Grand] MA desk, we are exploring a new area for integrated lighting and audio consoles."
> Andy Trott, Soundcraft

Soundcraft **Si Performer**

Digital Audio / Lighting Console

Soundcraft has launched arguably its most unique console to date, the Si Performer, which, as well as boasting a series of audio enhancements over the manufacturer's successful Si Compact, is the first ever audio console to integrate DMX for lighting control.

The world launch of the Si Performer took place in the cosy basement of London's Soho Theatre in Dean Street last week, where a capacity crowd witnessed a sensational vocal display from West End and Broadway leading lady, Kerry Ellis, who performed *Defying Gravity* from the show *Wicked* and then a rendition of Etta James' *At Last*, before top covers duo, The Beatniks, took to the stage for an hour-long set of hits from the 60s and 70s.

At FOH position for the duration of the show was engineer Pete Freeman, who operated the audio and the lighting from Soundcraft's latest baby, the Si Performer. This was the first show ever where both of these disciplines were controlled by one person working from one piece of kit.

Little Big Console

First and foremost, let's be straight: the Si Performer is a very capable audio console. It has a 'turbo-charged' version of the Si Compact engine and boasts identical audio quality, yet it also provides a huge 80 channels to mix – double that of the Si Compact; 35 busses (12 more than the Si Compact); eight VCA groups and eight mute groups; a fully parametric four-band EQ with shelf on the HF and LF bands; and L/R/C panning.

One of the immediate advantages in having more inputs, according to Soundcraft's product specialist, Richard Ayres, is versatility.

"For example, if you wanted different EQ and dynamics on the house and monitor patches, Si Performer allows you to double-patch one mic to fader one on two different layers," he explains, "It will process them independently, with layer 'A' doing FOH, and layer 'B' doing monitors, so it's horsepower that you can harness without having to dip into your pocket."

Two models have been released: Si Performer 2 and Si Performer 3, which have 24 and 32 mic inputs respectively. Both also have eight line inputs and four return FX channels. There are two option card slots, which allow I/O expansion via any Soundcraft stage box (hence the possibility of 80 inputs to mix) or from CobraNet, AVIOM, or AES inputs via the appropriate cards.

A Bright Idea

But what is entirely unique, of course, is the integration of DMX. A DMX512 port is set into the back of the console to provide core lighting control – and as Ayres reveals, "It can do a lot of lights".

"The implementation we are releasing with version one deals with 22 or 30 DMX addresses – that could essentially be 30 independent dimmer channels," he explains. "We are not trying to make this console out to be something it isn't, though – if you start wheeling in a bank of moving-head devices each with a US$10,000 price tag, that type of fixture is not intended to be operated by this console."

Unsurprisingly, the R&D for Si Performer was significant; as Soundcraft wanted to make sure its placement in the market was absolutely right. A number of lighting operators and production companies were involved, and members of the Soundcraft team even enrolled themselves in lighting training courses to gain a better understanding of the industry.

"Positioning it is the really important thing for us, and we see that in the smaller applications: churches, theatres, corporate hospitality, small band gigs; we're not pretending we are a Martin or a [Grand] MA desk, we are exploring a new area for integrated lighting and audio consoles," says Soundcraft's President, Andy Trott. "It's a damn good audio console, that's for sure, but the lighting adds a new dimension, so you can run a complete event from one console, like you saw at the launch today."

Another key aspect with any new product at Soundcraft, Trott reveals, is the customer's business

>

From The Distributor

> **"For single-operator applications, particularly we think within theatre and corporate AV, the Si Performer combines extremely well specified audio functionality featuring renowned Soundcraft sound quality with the unique integration of DMX control. Sound and lighting fader functions can be combined in layers, delivering comprehensive show control in a single, compact package. Not designed to replace a sophisticated lighting desk – or operator – the Si Performer is a compelling new console option for situations where an operator's role already combines sound and light."**
> Ian Cullen,
> Marketing Director,
> Sound Technology Ltd

Information

- • DMX/lighting control integration
- • 24/32 mic inputs
- • 80 channels to mix
- • 35 busses
- • Eight VCA groups
- • Eight mute groups
- • Two Option card slots
- • HiQnet integration

Manufacturer
Soundcraft, UK
www.soundcraft.com

UK Distributor
Sound Technology
www.soundtech.co.uk

Price Details
UK: £TBA

THE REVIEWER
PAUL WATSON'S experience in the music industry stretches back to his time as a touring musician ten years ago, then working alongside some experienced producers before opening a recording studio and writing for the pro audio world. He now writes for a number of international trade publications.

model: “We had an engineer in recently who was blown away by the product,” he says. “In his theatre he has a small audio console and a small lighting console, and under certain applications he can now replace both of those with one Si Performer, which saves a seat, and in turn creates more revenue for his business.”

Ayres says it’s been a fascinating journey so far, and a particularly interesting one for an audio company. He also sees great potential for Si Performer in the US market – a market Soundcraft has already doubled its business in over the last 12 months.

“One of the customers that this has great appeal for in the US is portable churches; and the schools and colleges have much bigger arts facilities over there than here in Europe, so they’ll also benefit,” he insists. “At a school assembly, for example, you might need the lights up or lights down, and all you’d need to do is open up a slider on the console – very simple.

“Add to that the fact that we have more and more integration with [Harman’s] HiQnet system, and there is suddenly the practical possibility of someone actually doing this from a touch screen panel on their BSS unit, or recording a preset via MIDI. These are all realities today for this console.”

The first release of the software provides four scene masters (A-D) with associated slave channels on the ALT fader layers. Individual colour intensities or parameters are set on the slave faders with an overall master level fader, which itself may be assigned to any of the main fader layers for simultaneous access to audio and lighting levels.

To automate the process, DMX settings can be stored alongside audio settings in the snapshot system, so both may be recalled automatically by a single button press or via an external MIDI command. With selective isolation, snapshots with just audio or lighting parameter changes may be recalled.

Each channel also features a custom LCD screen, which shows channel name, assignments, graphic EQ frequencies and DMX data, as well as signal metering.

Although for now, if working on the type of event where you would typically need a separate light and sound engineer, that would probably still be the case, there are big plans for Si Performer and the future looks rosier still – especially as DMX functionality on the ViSi remote looks to be just around the corner.

DMX Explained

The DMX512 protocol is an ANSI standard lighting control protocol, in much the same way as MIDI is a standard protocol for controlling musical instruments – though DMX messages are less specific. Rather than sending individually addressed messages, the DMX packet is a set of 512 (or fewer) value slots, plus a start code that specifies the type of data to follow. Lighting fixtures can use those slot values as required, so a single DMX network might address up to 512 dimmer channels, or 256 pan-and-tilt values, for example.

DMX512 connections are normally made with XLR5 connectors (sometimes XLR3), and a DMX network is set up as a daisy chain with a single master (controller). Basic lighting fixtures normally use sets of binary DIP switches to set their DMX slot numbers (addresses).

The open, unidirectional nature of a DMX packet, means that what happens when the controller sends that message is down to the slave devices in the chain. The controller has no ‘knowledge’ of what is happening down the line.

The End Of The Tunnel?

“The next step is to set about doing additional coding for the consoles; it will primarily always be an audio console, and we will not sacrifice any audio functionality to tip the balance in favour of the lighting, but there are several areas that we’re excited about enhancing,” Ayres enthuses. “We want to improve support for intelligent lighting, and improve show management; and a big thing you will see soon is DMX functionality appearing on the ViSi remote, which will mean it is then essentially two control surfaces, so you could have one guy working the audio from the console and another tweaking the lights from an iPad. How far this will go, who knows, but it’s been an amazing journey so far.”

“It’s entry level at the moment, but it will soon get sophisticated; and the area that is very attractive for us is the potential of remote lighting control for a pretty complicated show,” Trott concludes. “That’s very interesting, and us coming at it from a naïve area might mean we have new ways of doing things that the lighting guys may have been blinkered to.”

FOCUS.

Focus on one thing, and only one thing long enough, and you’ll master it. That’s our philosophy at KRK. We don’t make PA gear, mixers or motorcycles. Rather our focus has always been to make the most accurate studio monitors available at any price.

Our singular passion is about sound and the tools you need to deliver a great mix. So when you use a VXT powered monitor, you can be confident that you get the most accurate reproduction of your mix. VXT’s diffracton-limiting curved surfaces, silk-domed tweeter, seamless crossover, and KRK’s trademark yellow Kevlar woofer bring superior audio imaging, outstanding transient response, and amazing detail. For over 20 years, KRK has focused on the art of recording monitors. When you hear your music through a pair of VXT 4, 6 or 8” monitors, you’ll understand our passion, our craft, our focus...and your mix.

VXT

Our Focus, Your Mix.

For more information visit **www.krksys.com**

KRK SYSTEMS

Proudly distributed in the UK by

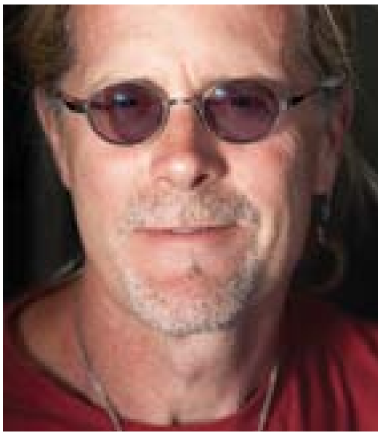
Focusrite®

Bourne Legacy

STEPHEN BENNETT talks to Per Hallberg, Supervising Sound Editor across the Bourne franchise, about how the films have developed into the latest masterpiece and what makes this particular instalment special.

When the first instalment of the movies featuring amnesiac action hero Jason Bourne burst onto the screen in the 2002 film *The Bourne Identity,* it redefined the modern spy thriller movie – causing one particular rival movie franchise to be shaken, if not stirred. Though the first three films starred Matt Damon as the eponymous hero, as with his ‘licensed to kill’ counterpart, it seems that the franchise can survive the absence of the original lead actor and has, literally, been ‘Bourne again’ (I thank you). The latest instalment, *The Bourne Legacy* is directed by Tony Gilroy and has Jeremy Renner taking over the reins as the hero of the movie. However, some things have not changed. Post-production sound house Soundelux, based in Los Angeles, USA, has once again been assigned the task of creating the sonic complement to the explosive big-screen visuals, having worked on all of the films in the franchise so far.

Per Hallberg is Supervising Sound Editor on all of the Bourne films, and his path to Soundelux, and his work in the movies, reads like something – well… out of a movie. “I ended up here in Los Angeles and met Wylie Stateman and Lon E Bender at Soundelux,” says Hallberg. “Pretty much out of the blue they offered me the opportunity to come and work with them, although I had no experience and no thoughts of working in film, or sound.” Surprisingly perhaps, Hallberg said no. “...Instead I spent about four or five months just being here so I could sit with the best sound effects, dialogue, and picture editors. I went to scoring sessions and I met composers, I went to mixing stages – I pretty much saw everything, from shooting a film out on production to the preparation of the finished product, and so had the opportunity to sit next to the best of the best as they were doing their work. I probably would call that the most intense film school that you can ever imagine! One day they needed help with something and I figured that I was ready, so I said ‘well, you can hire me now because I know how to do that!’ – and that’s kind of how I started... Those four or five months that I spent doing this was probably the most important part of my career.”



> “When we finished the movie it felt to me, personally, pretty close to perfect – and that’s not always the way it is when you finish something! That only happens if all the different pieces fit together.”
> Per Hallberg, Supervising Sound Editor, Bourne Legacy.

The size of that team that Hallberg assembles depends on the size of the project. “We can be doing a smaller film, where we have maybe ten to twelve people on board, but we have also had bigger films with a tight time schedule where we have up to forty people in the total sound crew,” he says. “ This would include sound editors, assistants, Foley editors, Foley crew, and mixing crew – it’s quite the operation that goes on at those times!”

As is common in big budget productions, the sound is usually the last thing to be completed and so deadlines are usually tight. “It is an interesting spot for me to be in. I like people, I like teamwork, I like the logistics of it and trying to figure out how to do it well. I also I love the ‘audio story telling’ side, as I call it. You’re usually working with a somewhat finished product so you always have to understand the film, what’s needed, and what the director is looking for.”

Fresh Faces

The fourth film in the Bourne franchise has a new Director and a new lead actor, so things were bound to be different – at least in the initial stages of production. “We had not worked with this Director before, but we were considered because we’d done the earlier ones,” says Hallberg. “ However, once we met the director and started working together it was fantastic. The whole team on this one was so solid, so decisive – it helped that the Director is also a writer and his brother John is the Picture Editor. We had very good communication with John Howard Newton (the Composer) too. It was one of those jobs that just felt really, really good – I don’t know how to describe it when everybody is at the top of their game and understands what’s needed and agrees on it. The project has a tendency to fall into place in a way that is… well, you shouldn’t say ‘effortless’ as that makes it sound easy, but when you work hard you actually realise that it all fits. When we finished the movie it felt to me, personally,

pretty close to perfect – and that's not always the way it is when you finish something! That only happens if all the different pieces fit together. It's not just our part, of course – it's that the composer's music fits with what we do and also that we fit in with the wishes and the ideas that the director and picture editor have. It was one of those projects that felt like there was nothing missing and there was nothing out of place – it melds together just beautifully.“

A lot of the film was shot in New York City, with the dailies from the on-set sound crew FedEx'd on a hard drive to LA regularly during production. “These were then imported into Pro Tools and renamed and checked against the sound reports to correct any that were mislabelled. At the same time, a wild track list was generated,” says Phil Morill, First Assistant Editor. “I went up to New York and had a day of meetings with the director and crew, and we looked at some of the material that they had already shot,” adds Hallberg. “Gilroy also came up to the office in LA and we sat down together and looked at some of the material that had already been filmed and had been cut together in the first assemblies, just to give me an idea of where we were going. At that point, it is really important for me to listen, because everything that I get at those moments is allowing me, sometimes in obvious ways and sometimes in subtle ways, to try to figure out what the Director is really looking for, what it is that he's feeling, what is and is not important, and what defines his style.”

While some directors know exactly what they want and can explain it in technical terms, others can be more obtuse. “Directors see things in different ways. One may ask for a moment to be a little 'blue,' for example – and I have to make sense of that. I need to translate what they say into what they really need, so that we can then execute what they require. A writer/director like Gilroy is a little bit different, they have a slightly different way of communicating. I think they also look at their film differently, and I think this movie has a lot more depth in story and dialogue than before. It's taking its time with the story compared to the earlier three movies – but then, the story dictated that in a way, as we couldn't get much information because the character himself didn't have it! All three previous movies were about Bourne being on a search for himself, and we went on that search with him – so we were pretty limited in what we knew about the bigger picture. This film now kind of delves into that. I think that Tony, the Director, has given the audience and the franchise an amazing boost by adding a depth to the story and an understanding of what lies behind it. It also expands the franchise because there are many places the story can go now. It felt like it had come to some kind of conclusion and end with Jason Bourne in the third movie, but now the world kind of opens up for us and here we go – and it's a much, much bigger story than we first thought.”

New Depths, New Challenges

Though important for the evolution of the franchise, Hallberg believes that the change in lead actor and tone has also added and important depth to the story. “This film has room for subtleties and dialogue scenes,

TODD-AO
Glen Glenn Sound

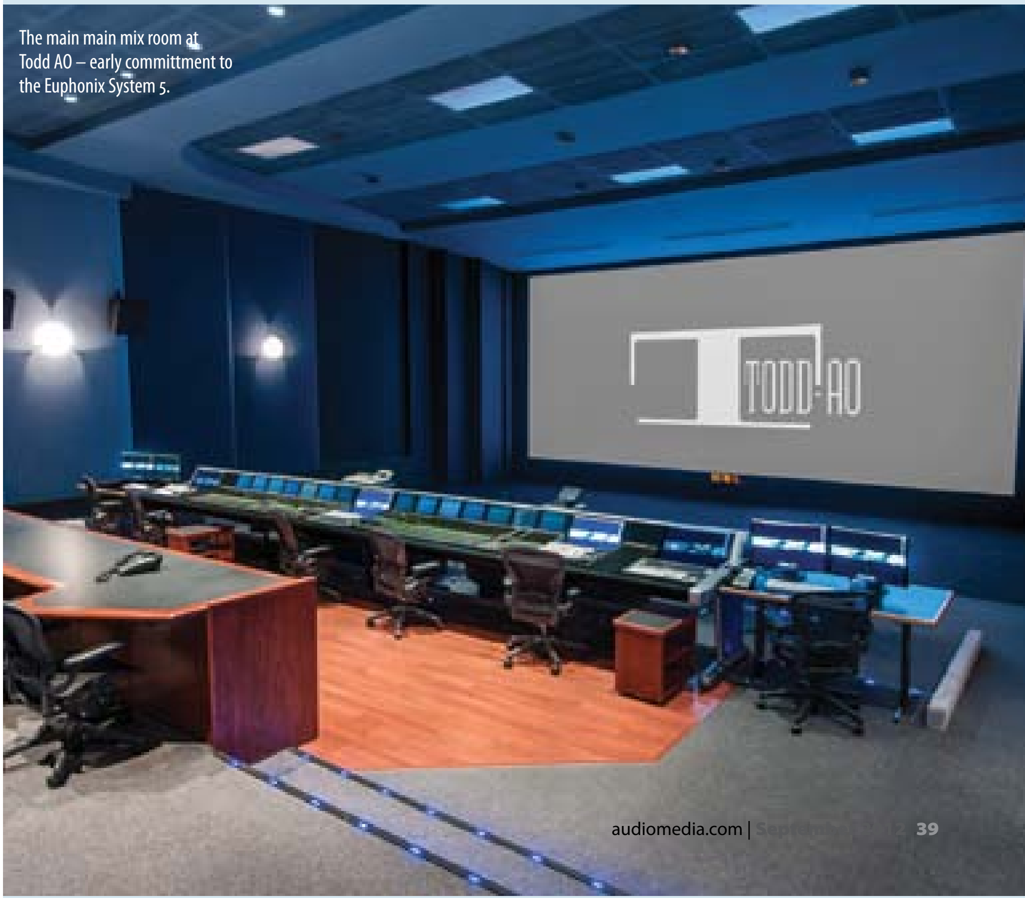
Todd-AO: 60 Years

The Soundelux brand was responsible for *Bourne Legacy,* and sits among a group of brands in the CSS Studios group. Among the others are Todd-AO, Sound One, Modern Music, POP Sound, Soundelux Design Music Group, and The Hollywood Edge. Of these, Todd-AO probably stands out as the longest-standing and possibly best-known name in the business; and it's about to celebrate its 60th anniversary.

In 1953, Michael Todd and the American Optical Company came together as Todd-AO to develop and distribute a large format presentation system incorporating a wide, curved screen with multi-channel sound – a pretty impressive technical achievement at the time. The design brief was to “develop a motion picture system that would photograph action in very wide angle... with one camera... on one strip of film... to be projected from a single machine... on a very large screen... with a quality so perfect that the audience will be part of the action, not just passive spectators.” The resulting 70mm format, in a 2.20:1 ratio, was extremely successful and films such as *Oklahoma!* (1955), *Around the World in Eighty Days* (1956) and *South Pacific* (1958) were distributed in the format, though the ultra curved screen was only available in a few cinemas. By the late 1970s, 70mm format films were becoming rare, and so to compete with 35mm anamorphic films, Todd-AO developed its own system, with *Conquest of the Planet of the Apes* being amongst movies shot on the format. Since the 1980s, Todd-AO has also been a successful name in the post-production field and is now part of CSS Studios, which also encompasses Soundelux, Sound One Modern Music, POP Sound, Soundelux Design Music Group, and The Hollywood Edge.

A Unique Brand

“Todd-AO is a unique brand in the history of Hollywood and the entertainment industry, yet is also a brand that triggers positive associations for audiences globally,” says Robert C. Rosenthal, President of CSS Studios. “As I meet new people, not everyone knows exactly what we do at Todd-AO, but pretty much everyone is familiar with the name. It's very satisfying to be associated with Todd-AO, its people, its facilities, and its creative legacy. The post-production industry exists in a state of constant change, always adapting to advances in technology and the evolving needs of filmmakers. Todd-AO's strong value proposition, however, with a focus on providing smart technology, amazing talent, and great facilities in the service of some of the greatest visionary filmmakers of our time, which has allowed



The main main mix room at Todd AO – early committment to the Euphonix System 5.

which makes it quite dynamic," he says. " Part of our job, together with the music, is to help create that dynamic in the pacing of the film, and because we also have these little bit longer set-ups in scenes such as a shoot out in the house with one of the main characters, there's more time to explore what they are talking about, what the story is, and what the emotions of the characters are, all before the 'action' begins. I think that's why I really liked doing it because it was a challenge of a different kind to work on this."

Soundelux's Sound Designers run Pro Tools HD3 ver10.2 on Mac Pro 2.8Ghz Quad-Core computers with 20GB 1066 MHz DDR3 RAM in design rooms with either 5.1 surround set-ups using JBL or Dynaudio speakers. Like most Directors, Tony Gilroy prefers to capture audio live on the set rather than use ADR – which is a challenge on any location, never mind that of an action film. "It's been the same production recordists on all movies now, " says Hallberg. "His job is very dependent on what kind of authority, if you want to call it that, that he has on the set and the production was fantastic on this movie. I believe that on the first day of the shoot, Tony introduced the sound recordist to everybody on the set and said, 'this is our sound guy, I need him to do a good job and when he says that he needs something or we need to do something different, I want you to listen to it.'

"Two things happen then: one is that the crew on the set realise that the Director cares about the sound and help out as much as they can, and two, it gives the production recordist the understanding that the director is a guy that really cares about what he does and he's going to give him a chance to do it right, so he's likely to up his game. Tony, the Director, does not like ADR if he can help it – though it does not mean that we didn't perform any! But it was one of the smallest ADR lists that I have dealt with in a very long time."

The ADR that was performed was recorded at Todd-AO West in Santa Monica, SoundOne in New York, Warner Bros. in Burbank, and Goldcrest in London – usually using COS 11 radio mics and Shoeps or Sennheiser on booms, and in one case, a good old Neumann U87. "The ADR wasn't really for technical reasons and the production recording was really good," Hallberg continues, "But as usual, we had to use all the tricks in the book to clean up the things that were not perfect because of local environments and stuff like that. Then, at the dub stage (on Stage 2 at Todd-AO) the work continues, and so you never stop. You try to tweak and tweak until you get it better and better."

Hallberg and his partner, Karen Baker, were as surprised as anyone at the success of the Bourne movies. "The first one was this little film in which the studio didn't really get involved, " he says, "They didn't quite know what they had. It was an odd film and all of a sudden we had a lot of issues to resolve to get it finished. And once it was finished, everybody had worked so long and so hard trying to just fix it that I think the perspective was lost. When it came out that summer and was a big hit, it was a pleasant surprise to everybody. I remember sitting at the first premier and I turned to my wife and said, 'They're watching the film and are really hooked!' It was like we didn't really have an idea as to the phenomenon it would become." AM

> **'Todd-AO, throughout its history, has been known around Hollywood as the go-to provider for major prestige-projects…"**
>
> Robert C. Rosenthal, President of CSS Studios.

it to survive and thrive for sixty years in this highly dynamic environment. Key to our continued success in recent years has been our focus on anticipating the needs of filmmakers and investing in the appropriate technology to deliver on our promise of creative and technical excellence, delivered in a secure and fully integrated environment."

"Each of our facilities is equipped with technological solutions designed to maximise flexibility in our workflows, and address the unique needs of each facility and its target markets. As part of a larger group of companies, Todd-AO is able to invest, with a long-term, enterprise-wide strategic perspective, in technology and facilities.
I am particularly proud of the prescience of our team to make an early bet on technologies such as Pro Tools and Euphonix. Considered a risky choice by many at the time, history validated our commitment to, and investment in, these technologies, which have since become de facto industry standards. Recognising the importance to our clients of strategically located facilities, fully integrated and equipped with purposeful technology, and access to top-tier creative talent, CSS Studios and Todd-AO continue to invest significant resources in making sure there is no post-production facility with more or better technology. The company is committed to maintaining this status in the industry and has, for many decades, decisively delivered on a promise of uncompromising commitment to bringing the most comprehensive level of audio expertise and service to the content community."

Today, Todd-AO continues to be the creative epicentre of post-production sound and maintains its position as the leading independent provider of post-production sound services to the film and television industries, operating from three state-of-the-art facilities throughout the Los Angeles area.

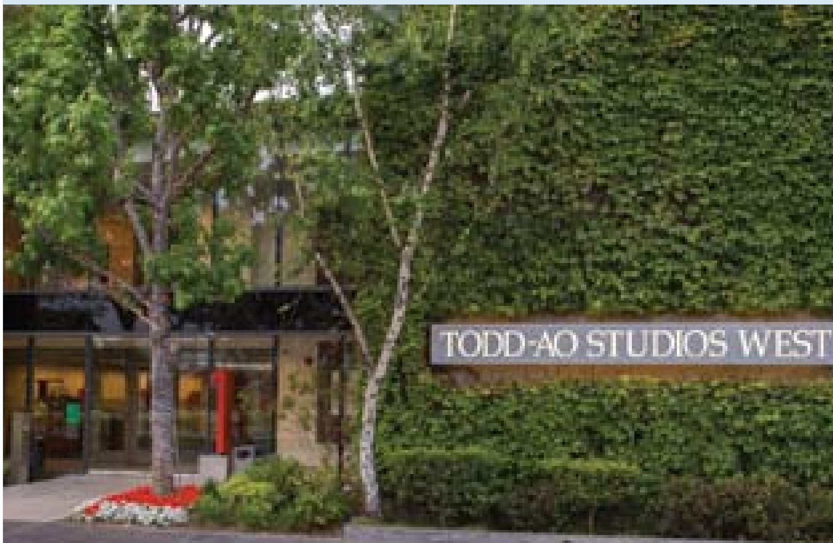
"Todd-AO has a deep pool of creative talent that can provide a wide range of services to projects of variable sizes in any of its locations. Todd-AO, throughout its history, has been known around Hollywood as the go-to provider for major prestige-projects, or when schedules and creative challenges required the ability to scale and leverage our considerable collection of creative and technical resources. As such, Todd-AO is uniquely positioned to customise solutions and poised to deploy a stunning array of resources to respond successfully to post production sound projects of any scope and level of complexity, supported by expert engineering and facility support teams."

An Impressive Array

Todd-AO, as part of CSS Studios, sits at the centre of a collection of post-production sound facilities with more than 50 Academy Award nominations and 25 Academy Award wins. "These awards and credits are an extension of the talent found in-house, which is unparalleled in the marketplace," says Rosenthal, "These factors feed into the most important point of leverage Todd-AO has – brand equity, a reputation for professionalism, creativity and excellence gained over a period of six decades; a rather stunning accomplishment for a provider of creative and technical services in a business that regularly reinvents itself to always push the boundaries of possibility to wow a global audience."

Todd-AO enjoys and nurtures its reputation as a trusted and highly reliable creative partner to acclaimed filmmakers. "Our primary mission is to serve as a source of high-quality services performed in a secure environment and delivered with a high degree of integrity in its business practices," says Rosenthal. "We find ourselves the stewards of a truly iconic Hollywood brand. It's a privilege I enjoy, and also a responsibility I take very seriously." AM

w **www.toddao.com**



We are proud
to introduce
SAM to you.

As a sound engineer, you need to have a reliable and precise monitor system that reproduces the source sound neutrally. You want an uncolored and undistorted sound with flat frequency response in all situations. A monitor that is capable of automatically adapting to acoustical environments and correcting for levels, delays and room calibration is an indispensable tool for a sound professional. A Smart Active Monitor (SAM) addresses all these demanding tasks. A SAM system can be controlled with digital networking, enabling you to build highly flexible computer controlled systems of monitors. The acoustical features of SAMs can be optimized with software calibration features for different working styles or client demands. SAM reflects the most advanced monitoring system features available in the audio industry.
Visit us at IBC • booth 8.D61 • hall 8.

GENELEC®

Dolby Atmos & You

DOLBY ATMOS

Dolby Atmos has risen rapidly from competitor to main contender in the race for an objective audio format to take cinema into a more immersive and creative future. This isn't just a few extra speakers for cinemas. It could change the way film sound is approached at a fairly fundamental level, and therefore have a significant effect on the market for audio post-production services in film. Quite important then...

To work with Dolby Atmos, you have to understand the basic concepts of channel ('array') beds, and discrete objects. First, the more familiar channel component (9.1, 7.1, and so on): Dolby's Jurgen Scharpf (Senior Product Engineer, Audio & Video) stresses the idea of an array, as opposed to a point source: "Channel tracks – or the bed – address arrays of speakers. For example, if you pan something to the left surround that lights up three to four speakers in the cinema. It's an array, and gives you a diffuse perception of where that sound comes from, but it also gives you pretty good universal coverage.

> **"You would expect a Dolby theatre to have a perfect sound system – and we did our best to achieve that with the help of Munro Acoustics."**
>
> Hubert Henle, Dolby

"An object track has a very discrete position. It pans to an individual speaker, or it pans between individual speakers. It comes more 'forward' in your surround mix."

Yes, there are plenty of novelty moments to be had here, but it goes deeper than that. Dolby's Hubert Henle (Senior Director, Content Services) provides an example of a restaurant scene. The channel component might be the music and a general background atmosphere. Then you could use point-source dialogue objects to bring some reality to the scene: "In a restaurant you can easily follow all of the conversations around you if you want to. With Atmos we can create that effect much better than you can with a surround array. It is so unnatural for a piece of dialogue to come from a surround array when usually you would expect it to come from a point source... If you do it right, you can either listen to them or filter them out, as your brain does in the real world."

>

The new Munro Acoustics-designed Atmos-ready preview theatre at Dolby’s new Soho offices.

Those dialogue objects could be treated as ’phantom sources’, where the point source is positioned at a position in 3D space using a combination of more than one of the discrete speakers (in the same way as a stereo system reproduces a phantom centre), or you can use the ‘snap to speaker’ option, where Atmos picks the nearest speaker to your panning coordinates and uses that to reproduce the sound object.

It is important to note that the panning positions of objects are not ‘printed’ as they would be in a channel-based mix. Metadata describes the position of the objects and that panning is rendered at the point of delivery (the cinema) and optimised for the particular speaker array and speaker density at the venue.

So, how do you go about an Atmos mix in practice? At the time of writing, Dolby is using its own Pro Tools panning plug-in to pan objects. This plug-in writes the information as Pro Tools automation and currently (cinema processor still in development) that is transmitted to the rendering unit, which renders the soundtrack in real time.

Dolby has confirmed it is already working with a number of DAW and large-format console manufacturers to implement 9.1 and object panning into their platforms, and we should start hearing news of those implementations soon. It has already developed a number of automatic panning modes for single-handed 3D joystick panning, but trials have shown that joystick-knob (height-position) or joystick-joystick panning are also perfectly workable. This third-party integrated approach is different to the IMM Sound approach, which was to use its own external DAW to do the panning and encoding.

Of course, for now (remembering a full commercial release of Atmos is some way away), there has to be some shenanigans to fit Atmos into Pro Tools. This involves not only the object panner, but a 9.1 panner. Scharpf says, “We are pursuing an additional plug-in that would give you 9.1 panning in the standard channel-based form. Currently Pro Tools doesn’t support that. We use a 7.1 buss plus a stereo buss for the overhead arrays.” Scharpf notes that the current workflow for objects is basically to create a number of object tracks in Pro Tools, complete with the Dolby panner plug-in, and move anything you want to treat as an object from the main materials (pre-mixed stems, individual sound elements, and so on) into those object tracks.

Now We Can

Because Atmos does have this audio + metadata real-time rendering model, there is potential for all sorts of adaptive options for the Mix Engineer to dabble with. For now, one that will be attractive to many is the concept of ‘conditional mixing’ – a kind of ‘If-Else’ arrangement for your carefully crafted project. An actual implemented example might be conditional options for 7.1 or 5.1 outputs. “Let’s say you have a helicopter hovering over the screen,” explains Scharpf. “In Atmos that’s pretty easy – you put it into the most front overhead surround speakers. Now, what’s happening in 7.1 and 5.1 renderings? Because it’s close to the screen it pulls some of that sound into the screen speakers when it renders it. That might not be desirable if you can’t actually see the helicopter.” In this instance, you could deny the helicopter object access to any front speakers when a height array is not available. Clever, eh?

Scharpf: “It’s an automatable feature in the panner, so you can do it for just one sound effect. That’s something that’s new. Mixing in one format and already setting parameters for other renderings. That’s definitely new in Atmos.”

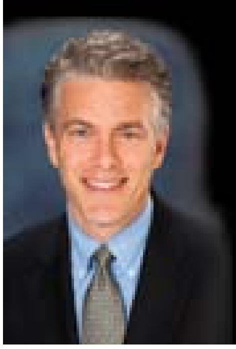
The next main development on Dolby’s list of things to do is to implement dispersion or spread of objects in the speaker array. At the time of writing, objects are

>

ATMOS AT A GLANCE

Dolby Atmos is a developing audio format, initially aimed at commercial cinema releases. It introduces ceiling speaker arrays for a height element and combines channel and object-based audio components. Array panning is like the traditional channel-based panning with addition of the two height channels. Height channel arrays are currently spec’d as as two lines of speakers down the left and right sides of the auditorium.

- Beds (channel-based components) support up to 9.1 audio, (Left, centre, right, left surround, right surround, left rear, right rear, overhead left, overhead right).
- Objects (‘point-source’) positioning supports up to 64 discrete speaker positions for vector/co-ordinate-based ‘phantom positions or ‘snapped to speaker’ positions.
- Atmos supports up to 128 simultaneous channel and object components (10-channel beds + 118 objects, for example)
- Object panning stored as metadata and rendered at point of delivery
- First full commercial release expected early 2013



“I’ve never seen a technology that was immediately embraced by the creative community the way this one has been.”

Doug Darrow, Dolby

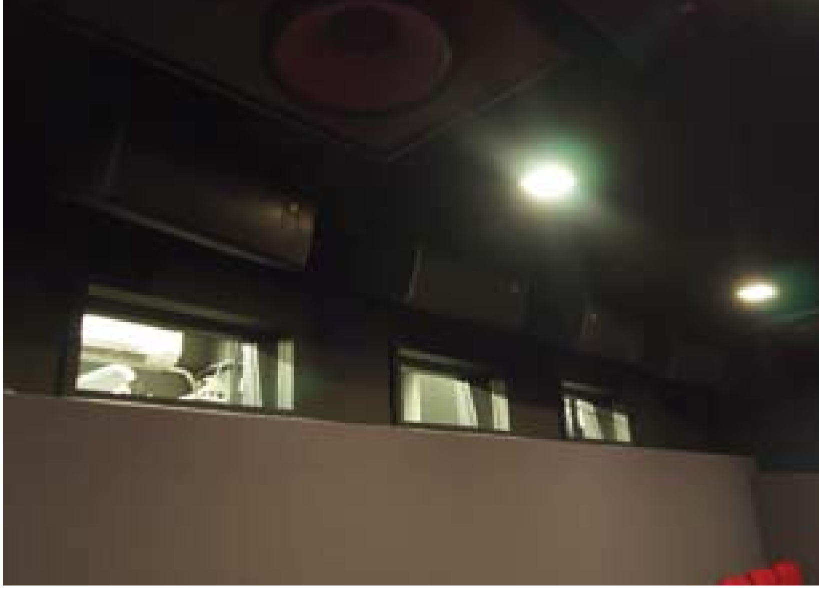
restricted to pannable point sources and cannot be 'spread' as a sort of halfway point between array and point-source. This will be available by release date.

Food For Thought

All these extra options must surely be a double-edged sword? It's going to give Re-Recording Mixers, Sound Designers, Editors, and Sound Supervisors a lot more to think about. It may even fundamentally change the creative process as objects begin to be planned into the sound design. But that also means we should get more options and more creative opportunity, right? As long as we get more time?

In any case, there's a lot to think about. Though when you do think about it, you'll realise how obvious and intuitive it should be. Scharpf has been involved with training – working with Mixers from Europe, the US, China, and New Zealand – and has been impressed with the speed of uptake: "The learning curve was never longer than a day," he says. "It's very intuitive. It's really what mixers have wanted to do for a long time... and now they can."

> **"The reaction's been outstanding. We've had great consumer reaction, great exhibitor interest. There's a lot of excitement right now in the industry."**
>
> Doug Darrow, Dolby



Dolby's Doug Darrow (SVP Cinema) is now on a count down to the first major commercial release for Atmos, which has started with the limited 'prototype' release of Pixer's *Brave* with Atmos. "We'll do additional prototype deployments this year," he confirms, "With hopefully-soon-to-be-announced titles that will be released into them... And then the commercial release of the product will be early next year."

So far, he's pleased with the feedback from the limited release of *Brave*: "The reaction's been outstanding. We've had great consumer reaction, great exhibitor interest. There's a lot of excitement right now in the industry. In some sense, you could look at the last several decades of movie-going and theatrical movie technology as a progression towards a more immersive entertainment experience, going back to the original days of widescreen. I might even argue stadium seating, and digital projection and 3D and surround sound are all sort of elements of a more immersive experience, and this is another way to take that to another level. "

Also, with the creatives, Darrow says it has set a new benchmark for positive reaction: "I've been demoing digital cinema technology for 15 years, and I've never seen a technology that was immediately embraced by the creative community the way this one has been. They get it instantly, it's like, 'I never want to do another movie another way than like this'. It's really been amazing to see that kind of interest and support. So, we're pretty excited about it, we think it's an innovation that's going to be firmly embraced by the industry and is going to deliver an overall much better experience to the movie going audience, and we know we've got to get it right, but we're really excited about the potential of it."

House On Soho Square

The centre of the Atmos push in the UK is at Dolby's new offices in Soho Square, London. With the help of Munro Acoustics, the company has created a new 70-seat preview theatre inside the building and has been busily getting >

IN WITH THE IMM CROWD

Last month, Dolby confirmed its buy-out of Barcelona-based IMM Sound, which was developing an objective audio format of it own, in competition with Dolby. The news of the purchase may disappoint those who were rubbing their hands in preparation for another format war, but for some it simply shortened a battle that was lost before it was begun, probably to the benefit of object-based sound itself. We asked Dolby's Doug Darrow (SVP Cinema) about the IMM Sound episode...

Doug Darrow: "...We didn't really view what they [IMM Sound] were doing as a competitive threat. Because of the stature and long history that Dolby has in the entertainment industry, it was never about being overly concerned about IMM sound gaining a lot of market share. It was more about getting to a solution that would allow for rapid deployment in the industry, and that was about delivering a common format for the best object-based next-gen sound solution. ...We felt like we had the best solution and IMM sound had the second best, and so if you combine the two best solutions, you give the market something that it can really get behind – a single format for object-based audio mixing.

"...At the same time, we would get a really skilled engineering team that had been thinking about this kind of problem for the last seven years, that we felt would be a good complement to the people inside Dolby. We were right about that. We've been extremely pleased with how the early phases of the integration have gone."

Paul Mac: What relative strengths of Atmos and IMM Sound are going to come to the fore as development continues?

DD: "They had some relatively developed authoring tools... They had some reverb enhancements and technology, and some equalisation solutions that could be nice additions to what we're doing. We had other approaches, and they were a little further along in some of those areas. So it's one of those things where it can be a nice fit. They had a different overhead speaker arrangement than we had, so what we'll do is look at both solutions and take the best of what both are doing. It's really a way to look at how somebody else approached the problem and share learning, and come up with an even better solution. That's the early view of it."

T*AP
D*AP
C8000
www.junger-audio.com
Level Magic ™ II
loudness
under control
jünger
EBU R128
ITU.1770/-2 ATSC A/85
IBC 2012, 10 D 20

Game Changed.

X32
POWERED BY MIDAS

In Stores Now!

32-Channel, 16-Bus, 40-Bit Digital Mixing Console with Programmable MIDAS Preamps, Motorized Faders, 32-Channel Audio Interface and iPad Remote Control

behringer.com/X32

behringer

© 2012 MUSIC Group IP Ltd. Technical specifications and appearance are subject to change without notice. All trademarks are the property of their respective owners. Displayed Smartphone is not included.

DEFINITION

- The term 'Objective Audio' has its root in the name of the popular object-orientated programming language, Objective C. We've used it to describe any system of mixing where audio is considered as a set of objects and metadata is used to describe panning and other information.

> excessive weight could compromise the isolation properties, and this had to be taken into consideration at the design stage.

This does pose an interesting question for cinemas as well. Large ceiling speakers will have to be hung safely, which would normally mean hanging them from the main building structure. In this, multi-purpose theatre/cinemas might have an advantage as they generally have well-specified lighting bars and exposed structural features. Also, smaller rooms require fewer speakers to meet the Dolby specification. Dolby specifies that speaker density has to be such that from every seating position in the critical listening area the angle between adjacent speakers should not be more than 30 degrees.

Hubert Henle was able to confirm that Dolby will be certifying mix rooms for Atmos at Feature and Premier levels, and that a number of post facilities in the UK and Europe were already in the planning stages of converting for Dolby Atmos.

Other considerations for both cinemas and dubbing theatres include a step up in the quality of sound speakers. Henle: "For the front [in the Dolby theatre] we're using typical screen speakers – three way systems – but the surround speakers are not typical surround speakers. We're still in a phase of defining what is a good surround speaker for Atmos, but it needs to be full range because it could be an individual source, so we need a better quality speaker compared to the average in today's cinemas. At the same time, you have to have cost in mind in a commercial theatre. You can't expect that a commercial theatre is all of a sudden installing surround sound speakers that are three or four times the cost of what they have installed already."

The new Dolby Theatre is a triumph, so don't pass up the opportunity to go and listen if such an opportunity presents itself. The combination of Atmos and Munro Acoustics makes for a special experience. The space is marked for a range of functions. Henle: "First of all it's a cinema that we can use for demonstrations of our technology. ...It is the ideal opportunity to demonstrate the technology right at the heart of the Soho community.

"The other purpose is we to offer it to our customers for their own screenings. It's designed as a reference room for both sound and picture. You would expect a Dolby theatre to have a perfect sound system – and we did our best to achieve that with the help of Munro Acoustics – but we've also had a look at the image side of things. The room design is very colour-neutral so that there is no impact on the perception of colours coming off the screen – which is what colour graders require."

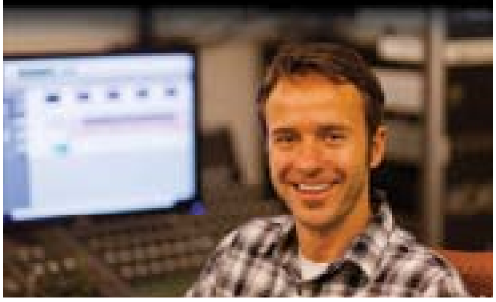
In the press release regarding the theatre opening, Munro's Technical Director, Chris Walls, was quoted: "The Soho Square building presented some architectural and acoustic challenges, but our design team certainly rose to the occasion. The result is an incredibly accurate theatre that demonstrates the potential of the Dolby Atmos format."

So, Dolby Atmos is a big deal for film companies, post production services, cinemas, and (hopefully) cinema audiences. There's still a little while to go before full commercial release, so the fine details of the spec and implementation may well change a little bit. Hopefully we'll start to see the fruits of the IMM Sound acquisition soon, which might include more than just panning. Spatial information such as reverb and EQ could well become part of the Atmos experience.

As for the future? Well, Atmos for the domestic market is not being ruled out, but it's not 'on the >

AUDIO AES
133RD
AUDIO ENGINEERING SOCIETY
CONVENTION
MOSCONE CENTER
San Francisco, CA, USA
Conference:
Oct 26 – Oct 29, 2012
Exhibition:
Oct 27 – Oct 29, 2012
Listen...
Learn...
Connect.
Recording • Broadcast & Streaming
Project Studio • Sound for Picture
Live Sound • Game Audio
Acoustics • Networked Audio
and MUCH More
for more information visit
www.aes.org

> **"You definitely feel this is a new sound format, but it's not distracting and I don't think people really notice that there are a ton of new speakers... People notice it's a great soundtrack."**
>
> Jurgen Scharpf, Dolby



BRAVE NEW WORLD

The first film to have limited release with a Dolby Atmos soundtrack has been Pixar's Brave. Will Files (*Madagascar 3, Compliance, Mission: Impossible - Ghost Protocol*) was Re-Recording mixer for the Atmos mix, taking on the tough job of satisfying both Gary Rydstrom (Re-Recording Mixer and Sound Designer on the commercial release) and the film's directors. At the time of writing, Brave with Atmos is screening at 14 cinemas in the US and one in Barcelona.

Jurgen Scharpf, Senior Product Engineer, Audio & Video for Dolby was involved in the Brave mix and tells a story of a constructive, iterative process that ultimately had to remain true to the commercial release, yet take advantage Atmos. "it kind of went through a three-phase mix," explains Scharpf, "Because there was a lot of experimenting done... The first version of the mix maybe went a little too far..." It had deviated too far from the original mix, so they went back to the mix room. Scharpf: "The second edition was a very conservative Atmos mix. We played it again for Gary [Rydstrom] and he missed a lot of things that we did in the first pass... The third pass ended up being the ideal one.

An example of a moment in Brave where Atmos really makes sense is when Princess Merida overshoots an archery target and goes into the forest to retrieve the arrow. Creatures of the forest, including birds and 'wisps' were assigned as Atmos objects and so came from discrete point sources surrounding the audience. "I think was much better in Atmos than it was in 7.1," says Scharpf. "...You definitely feel this is a new sound format, but it's not distracting and I don't think people really notice that there are a ton of new speakers... People notice it's a great soundtrack."

> road map' yet either. SRS Labs has already signalled its intention to address the domestic market with its MDA object-based platform and future cloud-based streaming capabilities. Of course, Dolby has never been shy of the broadcast market either.

This is mostly conjecture though. What does matter is that Dolby Atmos looks like it might be the dominant player in objective audio for cinema. And the Atmos 'switchover', if (when?) it comes, could separate audio professionals and facilities into winners and losers. We should probably plan to win. AM

w **www.dolby.com**
w **www.munro.co.uk**

FOR REAL PRO AUDIO

api
anthony demaria labs
apogee
apple
avid
barefoot
brauner
coleman
crane song
dav electronics
dramastic audio
fmr
jdk
lavry
lynx
neve
peluso
pmc
prism
roll music
shadow hills
shinybox
soundfield
soundman
towersonic

TALK TO US

KMR are Europe's leading supplier of high-end recording equipment. We stock a huge range of audiophile gear, available to audition in either our North London demo rooms or the comfort of your own studio. If you like your supplier to know one end of a Lundahl transformer from a T4 opto-compressor, our highly experienced staff will help you choose the best equipment for your needs. Combining a passion for great recording kit with good old-fashioned service and competitive pricing, we look forward to hearing from you.

email • sales@kmraudio.com web • www.kmraudio.com
kmr audio, 1375 high road, whetstone, london N20 9LN
☎ 020 8445 2446

Making Moves at Metropolis

The West London-based Metropolis Group is celebrating its 21st year in business and continues to expand, especially on the international scene, reports JIM EVANS.

Occupying a Grade II listed former power station in Chiswick, West London, Metropolis Studios (or Metropolis Group, as it now calls itself) has bucked a few trends over the years and established itself as one of the UK's premier studio/production houses. And, to paraphrase the poet Thom Gunn, you're always nearer by not standing still.

With two large recordings studios, four mixing rooms, and probably the most up-to-the minute mastering facilities in London, it has much to offer. And it's not stopping yet. While there have been recent technical upgrades to the London facilities, plans for Metropolis openings in the Middle East, Japan, and the USA are moving ahead.

Leading On All Fronts

HHB Communications has helped Metropolis Studios stay at the forefront of technology by providing state-of-the-art professional audio mastering equipment from Avalon, Sonnox, Z-Systems, and Universal Audio.

The Metropolis Group's new Managing Director Ian Brenchley intends to take the world-class facility into the future by enhancing the audio equipment within its facilities. As such, HHB has provided Metropolis' mastering suites with Avalon AD2077 mastering EQs, a suite of Sonnox mastering plug-ins, a Universal Audio UAD-2 card, and a Z-Systems Z-Q6 Digital EQ.

Brenchley states that the key to growing a business like Metropolis in a competitive market is down to perpetually creating new revenue streams. And with two large recordings studios, four mixing rooms, five mastering rooms, and creative and production facilities that offer everything from tracking, mixing, and mastering to high-end video and online and mobile content, the Metropolis Group has the experience, staff, and facilities to serve as a creative hub for the music, film, TV, and software industries.

The World Is Enough

Global expansion is the future of the Metropolis Group, according to Brenchley. The company plans to open offices in L.A. and Tokyo with a studio set to open in Doha in 2013. With this growth comes a universal mandate to keep its studios and audio equipment at the highest standard possible.

>

The Power House is the Metropolis HQ in London, Soon to be joined by facilities in the Middle East, Japan, and USA

>

Brenchley comments: "Being a world-class studio means we have to lead the way technologically. Historically, Metropolis has always been at the cutting edge of new technologies and audio innovation, and we want to continue that tradition if not emphasise it more. We have an aggressive plan over the next three years to ensure we stay at the top of our game, and that means substantial investment in new equipment."

These efforts have only served to strengthen the business as Metropolis' engineers and state-of-the-art facilities continue to attract the likes of Lana Del Rey, Alicia Keys, and Will.i.am.

HHB Group Sales Director Steve Angel comments, "HHB has a long-standing relationship with Metropolis, and we have always had great respect for the innovative business model that keeps the company at the forefront of the UK's music recording and production markets. We are very proud to be partners with a company that is dedicated to staying ahead of the technology curve, and with Ian as MD the business can only go from strength to strength."

Brenchley has been with the company since 2008 and has worked previously with leading record companies including Universal and Virgin. He sees Metropolis as a one-stop shop offering recording and video production services across the spectrum.

"Everything is going very well right now," he reports. "We have had a great start to the year, have great plans nationally and internationally, and it's all shaping up very nicely."

On plans for the UK centre on further diversification of the business, he says, "I believe we are now a truly world class one stop operation for all audio and audio and audio visual production services and that goes across not just music industry, but film, TV, and now software as well. We have expanded the mastering operation, particularly offering our services internationally. We have a lot of exciting plans we're working on."

And how's the 'core' recording studio division prospering? "I don't mean to sound glib, but we have been managing to do very well. Studios run very much like hotels in terms of occupancy rates, and our studios for the last two and a half years have been running consistently at about 90 per cent occupancy. You can't do much better than that. Of course, these days margins are tight. Our studio rates haven't changed since the studio opened in 1989. I don't think there's another industry in the world where rates haven't kept pace with inflation – and ours have gone down with inflation. It makes it tough to achieve decent profits, which is another reason for expansion into other associated areas."

Project Qatar

Chief among the Metropolis projects is the opening of a studio complex in Doha, Qatar. "This will be one of the most technologically cutting edge studios in the world," says Brenchley with due modesty. "It will have a massive live room that can accommodate a 120-piece orchestra. The shell is built, and a lot of the fit out been done. Over £10m worth of equipment has been commissioned across three studios – a staggering array of bells and whistles. We are kitting it out, staffing it, and running it, as Metropolis Middle East effectively.

"The plan is to open for business in summer next year. Basically, it's a cut and paste of the London model, though

>

"It will have a massive live room that can accommodate a 120-piece orchestra... Over £10m worth of equipment has been commissioned across three studios."

Metropolis has recently upgraded its mastering facilities with new gear from Avalon, Sonnox, Universal Audio, and Z-Systems - all supplied by HHB.

> **“Everything we do at Metropolis is about audio-visual excellence, and Roland is the very best in its game, so it’s a great match.”**
> Ian Brenchley

> without so many rooms. Service and sonic excellence is what we will aim to achieve there as well. Our engineers will go over there and do stints. It’s a great opportunity - and a springboard into India and the Bollywood market, as well as China and Asia.”

And Los Angeles and Tokyo? “We had planned to get the L.A. site up and running for January, but that’s maybe a shade ambitious – but we will certainly be up and running next year, and we will have a studio there, not just an office. In Tokyo we are keen to open a mastering room as our mastering services have always proved popular with our Japanese clients.”

Against All Odds

So how does Brenchley account for the company bucking the trend when so many operators are struggling? “There’s a bit of a war of attrition out there with regard to studios. When I started, I think there were 96 fully commercial studios in the UK, and there’s less than a third of that number now. As others have fallen by the wayside, we have picked up business along the way and increased our volume of business.

“We have a very aggressive business plan, which is structured on sales and marketing, shouting about what we do. Our marketing team proactively gets out there to meet with people and get business through the door. And we fully understand what our clients needs are.”

METROPOLIS UK STUDIOS

Studio A
- 90m2 main live area
- $15m^2$ stone room
- $15m^2$ dead room
- $60m^2$ control room
- SSL 9072 ‘J’
- Genelec 1035A main monitors

Studio B
- $30m^2$ main live area
- $20m^2$ and $12m^2$ isolation areas
- $35m^2$ control room
- SSL G Series 4064
- Genelec 1035A main monitors

Studio C
- $10m^2$ overdub booth
- $55m^2$ control room
- Neve VR 72 Flying Faders
- PMC BB5/XBD main monitors

Studio E
- 5.1 mixing & sound to picture
- $9m^2$ overdub booth
- $55m^2$ control room
- SSL XL9072 K with Ultipan 5.1
- PMC BB5 / XBD / MB1 active 5.1 main monitoring system

Back on the home front, Metropolis has moved into the education/training sector with the launch of the Metropolis Academy – “a programme of music courses led by practitioners and industry experts that will take place in our world-class recording studios”.

Says Brenchley, “At Metropolis, we have a firm belief that whether you are a music professional or simply a passionate enthusiast, there is nothing quite like being taught in a studio environment, especially one where some of the most iconic albums of all time have been recorded. Equally, we believe there are no better people to guide you than the pros who’ve been there and done it. This is why we have set up the Academy. Our opening line-up comprises weekend courses and intensive three month programmes on everything from the Art of Music Production to getting into the Music Industry, with guest lectures from managers, sound engineers, musicians, and some very special superstar guests.”

Direction & Diversification

And the Metropolis village has expanded in a different direction with Roland UK opening its new showroom and offices in the Power House. Pianist and singer/songwriter Tom Hickox was guest performer for the debut of the new HQ, which will serve as a suite for demonstrating Roland’s musical products as well as its pro-audio and video equipment.

A Roland ‘Silent Stage’ (often seen at trade events) has been created in the huge Metropolis atrium, and there are facilities for web-streaming rich content, and the hosting of private demos of Roland keyboards and instruments to artists and bands (artist liaison specialist Jamie Franklin will be on-hand to do just that).

“We are the only company that can combine professional audio products with professional music products and professional video products. I can’t emphasise that enough. Working in an environment that allows us to do that is fantastic,” added Heath.

“Metropolis and Roland are very like-minded – they are pioneering in their space, as are we in ours,” said Ian Brenchley at the launch. “Everything we do at Metropolis is about audio-visual excellence, and Roland is the very best in its game, so it’s a great match.”

Roland UK MD Tim Walter also commented, “We’ve been looking for a new base in London for the RSG team, as well as somewhere for artists relations. Our artists need somewhere where they feel safe and secure, to be able to try out equipment.” Walter says the lease had come to an end at the former Power Road facility in Gunnersbury, and the availability of Metropolis “absolutely fitted the bill”.

“Particularly in these challenging economic times, these kind of partnerships become increasingly important,” he noted. AM

W www.metropolis-group.co.uk
T +44 (0) 20 8742 111

MERGING - HORUS
RAVENNA
NETWORKED | AUDIO CONVERTER
Amsterdam
Sept 7-11
8.E96
IBC 2012
WELCOME TO THE NETWORKING PARTY.
www.merging.com/horus

THIS WAY UP

two
two
TM

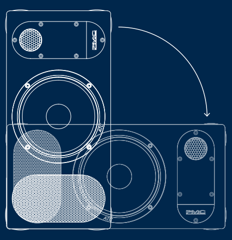
reference monitoring all ways

Confused? Well, no-one said choosing reference monitors was easy. It's a decision that will shape every critical judgement you make.

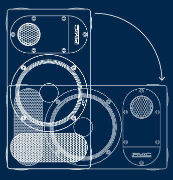
PMC's new **twotwo** active speakers make choosing and using a reference monitor easier than ever before. Plug in audio, and you're good to go, be it analogue, digital, stereo or surround, on phonos or XLRs. Whether you're driving **twotwo**s digitally from a console in a world-class studio, or plugging them into a laptop via a phono lead in a rehearsal room, you can work smarter and faster — and with the sonic transparency and accuracy that has made PMC speakers the trusted reference amongst the world's audio elite.

Both **twotwo** models produce an expansive sound for their size, with phenomenal low-frequency performance, wide dispersion and stable, accurate imaging using ***ATL***™. A powerful onboard DSP optimises driver response and guarantees a flawless crossover, and the dual-amplification system produces high-resolution audio with unparalleled headroom.

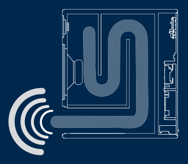
If you're *still* wondering which way's up, the **twotwo** has been crafted for use vertically or horizontally, without any detrimental effect on tone, stereo or surround imaging; so with the **twotwo**, the only way... is both.



twotwo.6



twotwo.5



ATL™ bass loading technology offers the following advantages over ported monitors:

- Exceptional LF extension with no colouration
- Identical tonal balance at all levels
- Higher SPLs without compression or listener fatigue
- A truly accurate response — believe it!

For the full low-down on what's up, turn to **www.pmc-speakers.com/twotwo**

Visit us at IBC, Hall 8, Booth E41 to experience the all-new monitors first hand

T +44 (0) 870 4441044
E pro@promonitor.co.uk

PMC®
www.pmc-speakers.com

"If you're already sold on UAD plugs and you're looking for new interface, then the Apollo is probably a no-brainer. It's a super-high quality interface, well designed, with superb sound quality and supported by easy-to-use and reliable software."

Universal Audio **UAD Apollo**

DAW Interface & Plug-In Host

Universal Audio is a name associated over the years with a myriad of renowned studio hardware, valued and collected by engineers and producers worldwide. But UA has also become well known for its incredible software emulations of analogue hardware in its growing UAD plug-in collection. With this hardware/software bond UA has produced the UAD Apollo, a rather special audio I/O interface. Apollo combines all of UA's hardware and software experience into one unit for leading edge DAWs.

Overview

The Hardware is an 18 input x 24 output audio interface... But no ordinary interface. DAW connection options are Firewire or the new superfast Thunderbolt. With a theoretical speed of 10Gb/s, this should open a new era of super fast media connections to computers. Also under the Apollo hood is a multi-DSP core (either Quad or Duo), offering real time processing, super low latency, and the 'power' for UAD Powered plug-ins. Using this via UAD's Console application gives the ability to place UAD plug-ins on inputs for real-time tracking through a favourite UAD analogue emulation, such as a tape sim or a classic EQ.

The Apollo is an impressive looking interface, a deep 1U rack unit with a lot of ventilation holes, well laid out, and certainly brings some of the UA class to its design. The front panel from left to right has two high impedance instrument inputs, then the first of the two large knobs. These are rotary encoders, and probably my only grumble – my first-impression was 'home electronics catalogue' style. Against the modern brushed aluminum faceplate and bright ringed LEDs, they look a little out of place.

The left hand knob cleverly controls the pre-amp gain and channel selection. This is done via a push selection for each of the four mic channels, each of which has a healthy maximum gain of 55dB. The level is displayed in a green LED ring surrounding the pre-amp knob.

A series of simple latching switches control mic/line, low cut filter, 20dB pad, phantom power, phase reversal, and a stereo link for odd and even channels. These pre-amp settings are confirmed on the large LED display showing any selected channel's optional status.

Next to this are the 10-segment bar meters, displaying levels for the eight analogue inputs, an internal and external clock status, and a UAD link. There's a solid green light when the hardware is correctly communicating with its console software and the computer. Lastly, there's a monitor output level meter displaying the actual output level of the D/A, so a pre-fade level, not the level of the actual monitor output or headphone knob setting. This ensures correct display of the output of your DAW and any clipping occurring, no matter how loud you're listening.

The right-hand knob controls the main monitor level and will mute with the same push select action, which changes the surrounding green LEDs to Red. Lastly, there are two headphone outputs with independent volume control for each, as well as optional headphone mixes for each output via the Console software or a feed from the main stereo mix. These headphone outputs are also independent from the main speaker monitor level and mute function, so it's a quick and easy set-up when you need to record in a studio control room environment.

Rear Panel

The power supply is an external block-type power supply, though it is a professional unit, with a four-pin locking XLR-type jack, so there is no getting confused with the ever-growing infestation of hard disk power supplies that litter the studio floor.

There are four ADAT S/MUX optical ports, which enable full eight-channel operation from 44.1 to 96kHz and four channels at 192kHz. (any connecting hardware has to support the S/MUX standard for the higher sample rates – 44.1/48 should be fine on anything). Below this is the Optional Thunderbolt Expansion Bay with its huge speed increase over existing connections. Surely this opens many options – like adding more Apollo units? Unfortunately, the release date for this much desired and hyped feature is not until "late summer 2012." I think then we shall get to see exactly what other speed bonuses this will bring.

Next along are two S/PDIF digital I/O via RCA connectors. Note that the Apollo has an automatic sample rate conversion if the incoming audio doesn't match the internal sample rate. Below this are two Firewire 800 ports, enabling other Firewire devices to be daisy chained, which was the only way I could connect an Apogee Ensemble for direct comparison. Connecting the two units to a Mac Pro meant one or the other would fight for the connection and disable the other. There is also word clock I/O via BNC connectors with a 75Ω termination switch, then the long line of tightly packed analogue connectors begin with 18 TRS balanced/unbalanced quarter inch sockets, a main stereo monitor out, 1-8 Line outputs, and 1-8 Line inputs, finishing off with four XLR mic inputs. All of the I/O is configured via the console application for -10dBV/+4dBu, whereas the Mic/Line inputs can be switched via the front panel.

>

THE REVIEWER
Alan Branch is a freelance engineer/producer and ex-member of the On U Sound Crew. His long list of credits include Jamiroquai, Beverley Knight, M People, Simply Red, Depeche Mode, Shed 7, Sinead O' Connor, Bjork, and Sade.
www.alanbranch.com

Visit us at IBC
Stand 8D93

Sound that keeps audiences listening

The OPTIMOD 8685 is Orban's second-generation Surround/2.0 Television Loudness Controller with AES input/output capabilities that include support for SDI/HD-SDI up to 3.0 Gbit/s and optional Dolby E decoding and encoding.

In addition to 7.1 or 5.1 surround processing, the 8685 can simultaneously provide up to four channels 2.0 or eight channels 1.0 audio processing allowing it to provide all the audio processing necessary for a typical ATSC broadcast with multiple subchannels or language processing.

The 8685 is dialnorm-aware. Loudness control is excellent when measured to the relevant loudness standards EBU R128, ITU-R BS.1770-2/1771, ATSC A/85 and ARIB or by the 8685's built in Loudness Meters allowing Television stations to comply effortlessly with legal requirements.

The combination of our highly refined Loudness Controller, which uses a true multi-band psychoacoustic model and Two-Band or Five-Band processing is audio that sounds smooth and natural, particularly during transitions between program material and commercials.

The 8685 2.0 downmix output has a dedicated loudness controller and loudness meter, which offers 50 µs or 75 µs pre-emphasis limiting to drive an analog TV transmitter for simulcasting analog and digital DTV.

To minimize latency and to achieve highest reliability, the 8685 uses a dual hardware architecture. Dual-core DSP chips do all audio processing while a separate microcontroller supports the GUI and control functions.

The dual redundant power supplies help ensure maximum up-time.

orban
8685 SURROUND AUDIO PROCESSOR
OPTIMOD

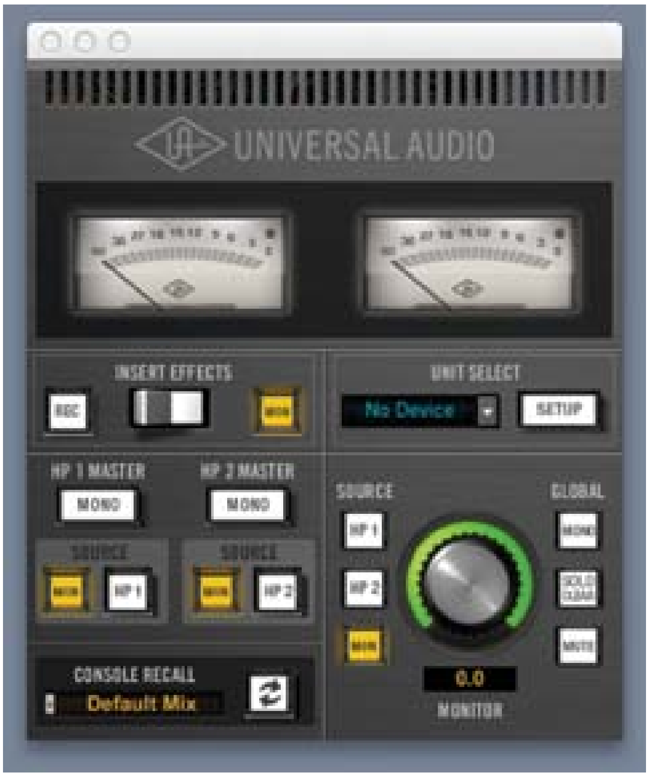
OPTIMOD 8685

orban

ORBAN Headquarters | 8350 East Evans, Suite C4 | Scottsdale, AZ. 85260 USA
[p] +1 480.403.8300 | [f] +1 480.403.8301 | www.orban.com

ORBAN Europe GmbH | Businesspark Monrepossstr. 55 | 71634 Ludwigsburg Germany
[p] +49 7141 22 66 0 | [f] +49 7141 22 66 7 | www.orban-europe.eu

86852012_Lo_am



The Console software can be run as an AU, VST, or RTAS plug-in, enabling quick and easy storage of the important console settings on a per song basis, without actually having to run the console software 'standalone'.

From The Distributor

> **"I think Apollo combines everything great about UA. The conversion is built to exceed the direct competition. But given the inclusion of UAD, and the ability to use live recreations of a Neve 1073 on input, warmly driving instruments through Studer A800 for example – Apollo really becomes way more than just an interface, it can be a creative part of the songwriting process. And of course it'll support your mixing and mastering process both in terms of presenting your music with quality hardware, while also giving you the best tools to mix it with."**
>
> Alex Theakston,
> Marketing Co-ordinator,
> Source Distribution

> Install and Software

Installation and set-up gave me a list of headaches with software and driver issues, but that may have been because of an existing UAD-2 SOLO card. After a little bit of a fiddle with uninstalling and a fresh install, I managed to get everything talking to each other properly, including the daisy-chained Ensemble.

The Console application is UAD's way of configuring the system-level interface I/O settings, much like most other manufacturers. The Console set-up is a mixing desk-type interface, including an 18-input mixer for all of the physical inputs, with the addition of two aux sends and returns and a monitor section, just like any standard mixing desk. It's simplicity itself – a straight-out-of-the-box type of interface that's familiar and easy to get recording with instantly.

All the inputs are laid out as channels from the analogue to the digital, the first four displaying the pre-amp options, as well as an accurate dB display of the input gain. Any channels linked as pairs are also grouped graphically and each channel strip includes four UAD-2 plug-in insert slots, two auxiliary sends/pan controls, two headphone switches with pan/level control, then main channel pan, solo/mute switches, and a sliding fader with a level meter alongside.

The main control section hosts the aux returns, which also have the four insert slots and headphone sends, as well as the option to output the effects to any of the direct outputs. This could be used for some interesting real-time effects, such as live instrument or vocal effects, either in the studio or in a live performance.

The monitor section has all of the front panel controls but with the added extra of numerical readouts. Two analogue needle-style dBFS meters top the section, with a good display of DSP usage meters below. A rocker-style switch changes the insert effects from monitor to record paths, which is useful for A/B-ing the dry and wet recorded signal, but could be disaster if you accidentally leave it switched on. Care will definitely be needed when printing with FX. Below this are various source controls for the headphone outputs, switchable input views of the mixer, plus pre/post metering, solo clear, headphone monitoring for setting up alternative mixes, and a console recall function.

There is also a console recall plug-in for AU, VST, and RTAS, enabling quick and easy storage of the important console settings on a per song basis and without actually having to run the console software. Also, using this means it's less likely to transfer insert effects from one recording to another.

Setting up the console was very simple. Nothing really needs to be changed if all you want to do is install and start recording quickly. Also, the console software is not required for operation of the Apollo, and the console plug-in means access to important functions is reduced to smaller more manageable size of desktop space – very important when working from a laptop.

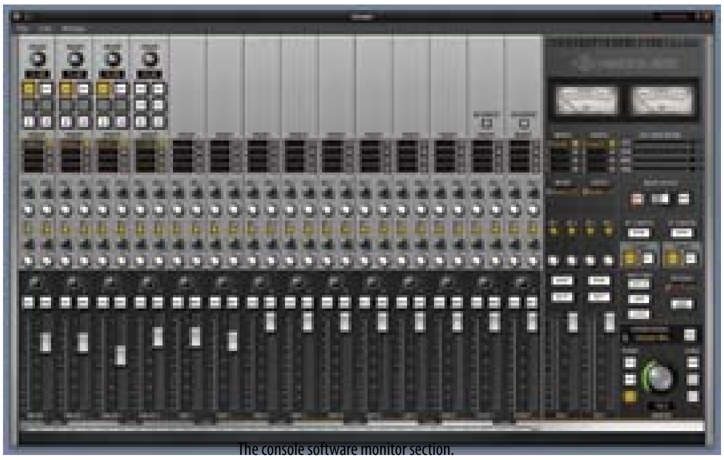
In Use

Firstly I have to say how good the Apollo is and how much it lives up to its hype. After the initial install and registration, adding the Apollo to my existing set-up was pain free. I could run the Apollo with Pro Tools 10 Native, Logic, Ableton Live – all quite happily. Depending on your studio routing requirements the console application is simple to use and has plenty of pro features.

There are two big UAD-2 options: Duo or Quad. Obviously the Quad brings twice as much processing power. The live processing is an interesting option and one feature not many other manufacturers offer, certainly not with the quality and reputation of the UAD-2 plug-ins. UA promotes the real-time processing ability with examples like recording drums with an A800 tape sim or vocals through a Neve 1073 EQ. Now this is an exciting option as it may save resources for later. It's much more of a classic committal to recording with a certain sound, and one that I was used to when there were only 24 tracks of tape!

Sound quality is obviously paramount and the Apollo certainly delivers. It has a dynamic and transparent clarity, and even with a very high mic gain the signal to noise ratio of 118dB ensures clean recordings with very low discernible harmonic distortion while the frequency response seems perfectly flat. The same goes for the

>



The console software monitor section.

> JFET Hi-Z instrument inputs, with the A/D conversion being very high as the detail and stereo phase coherence sounded lovely. Latency was extremely low, even with effects inserted and running a rather large session I could set a relatively low buffer, that wasn't noticeable even with the fastest of playing styles.

Conclusion

The Apollo has had a lot of hype surrounding it, possibly because of its Thunderbolt option and the built-in UAD-2 DSP real-time processing and super low latency. However, the role of powered plug-in host is also significant. If you aren't a UAD plug-in user and not currently (nor intending to be) an owner of a relatively new Apple Mac equipped with Thunderbolt, you might think twice for the meantime – although Apollo will be PC compatible with Windows 7 later this year. That said, if you haven't tried UAD plug-ins, don't make a decision until you have.

> **"Sound quality is obviously paramount and the Apollo certainly delivers."**
>
> Alan Branch

However, if you're already sold on UAD plugs and you're looking for new interface, then the Apollo is probably a no-brainer. It's a super-high quality interface, well designed, with superb sound quality and supported by easy-to-use, and reliable software. It also offers unique options like a future Thunderbolt expansion and the real-time plug-in processing facility with some of the best and most authentic-sounding analogue emulations around. It also combines the interface and the DSP into one unit so saving the cost of a dedicated DUO or QUAD UAD-2 PCIe/Firewire solution.

All in all this is rather special Apollo mission... ready for take-off (sorry).

Information

- 18 x 24 interface, FireWire/Thunderbolt-ready
- Mac only (PC support from late Summer 2012)
- Realtime UAD 'Powered Plug-In' DSP
- Low-latency (sub-2ms) tracking and mixing with Powered plug-ins
- Console recall DAW plug-in.
- DUO Core and QUAD Core processor options
- Includes 'Analog Classics' UAD plug-ins

Manufacturer
Universal Audio: California, US
www.uaudio.com

UK Distributor
Source Distribution: London, UK
www.sourcedistribution.co.uk
+44 (0) 208 962 5080

Price Details
UK: Quad: £2249.17 (exc. VAT)
Duo: £1790.83 (exc. VAT)
Thunderbolt Accessory: GB£TBC

NTG-8
Super-directional RF-biased Long Shotgun Mic

A SHOTGUN MIC THAT REALLY GOES THE DISTANCE

The latest in RØDE's price-busting, award-winning range of shotgun mics, the NTG-8 combines an open, natural sound and low self-noise with increased directionality across a wide frequency response - perfect for film, TV, sports, OB and any professional distance miking application.

NTG-1 Condenser shotgun microphone
NTG-2 Multi-powered condenser shotgun microphone
NTG-3 Precision condenser shotgun microphone
NTG-8 Long condenser shotgun microphone

source

Exclusively distributed in the UK & Ireland by Source
T: 020 8962 5080 W: sourcedistribution.co.uk/rode

facebook.com/sourcedistribution
twitter.com/sourcedist

RØDE MICROPHONES

Wireless Microphone Systems

Tech Focus this month is wireless microphone systems. The area has undergone some major shake-ups recently, and it's worth taking stock of the current range of offerings. Whatever your application, it's imperative that you plan your system carefully before committing your cash. This guide should go some way to smoothing the path.

EXPERT *Witness*

Buyer Be Wise

Regardless of your wireless plans, there are a number of common elements to consider when buying a professional system. Our Expert Witness is TheMicStore's Managing Director, Matt Lawless.

Who's In Your Gang?

One of the primary factors that will affect system choice, is how many simultaneous wireless users you have. Each receiver/transmitter (Rx/Tx) system has a maximum number of available channels that can be used at the same time.

The actual number will depend on the sophistication of its Compander (compressor/expander) and how much of the frequency spectrum it uses. Tighter, narrower companders will allow more systems to be used side-by-side within the transmission band. As a rule of thumb, the more simultaneous systems, the higher the equipment cost.

Give Me Power!

For a multi-channel system, it is likely you will want to consider how the receiver units are going to be powered. As each receiver (other than those on location wireless systems) will require mains power, it will quickly become problematic to try to power each unit individually. For this reason, you are likely to require some method of power distribution. This facility is often built into an antenna distribution unit (see below) whereby mains supply is transferred over the antenna link cables, thus alleviating the need for multiple PSUs.

Out And About…

For on-location wireless systems, an additional complication arises whereby mains power may not be available. For this reason, a number of wireless systems are available that include a battery-powered receiver for complete portability.

Channel Types

No introduction to professional wireless installations would be complete without a section on the various RF channels in use. In broad terms, for the UK only, these can be broken down as follows:

- UK Deregulated Channels include TV Band Channel 70 (863-865MHz) and 2.4GHz ranges. These channel ranges have been reserved for public use and are the most crowded and susceptible to interference. Professional users should avoid shared public ranges, however there have been successful deployments of multi-channel wireless systems utilising the 2.4GHz range within locations that are reasonably isolated (such as university campuses).
- UK Shared-Use Channel Ranges include TV Band Channel 38 (608-614MHz), which has been reserved for professional users needing systems that will be moved around the country. Around 12 systems can be used simultaneously in Channel 38 and require an annual license to be obtained prior to use.
- Co-Ordinated Frequencies refer to individual frequencies that can be obtained for exclusive use within a fixed location. Once again, these frequencies require a license, but this time on an individual basis. This is the most common choice for permanent installations as interference from other wireless users is effectively prevented.

Who's The Boss?

Users of single and low-number wireless deployments are likely to be comfortable managing the system from within the front-panel menus of the devices themselves. For more in-depth installations however, the ability to address the system as a whole is likely to be useful. Management capabilities can be available both on-device and via software control interfaces if needed.

Pick Up Points

Similar to the requirement for power handling, careful consideration will be needed over the deployment of antennae, and how they should be positioned. Also, unless you are planning to run only a handful of systems, it will become more practical to utilise a common set of aerials to support the overall system rather than rely on an antennae pair per receiver.

Antenna Distribution Units (ADUs) refer to hardware appliances that allow multiple receivers to share the same set of antennae. These devices will also enable power to be supplied to multiple receivers (see above). Most ADUs will support a finite number of receivers, but can be daisy-chained together to support larger installations.

Antenna Splitters are also needed where receivers on multiple frequency ranges are being used. These devices allow a common set of antennae to be split out to feed each set of wireless systems – useful when the installation exceeds the potential number of supported systems within a single frequency range.

Antenna Combiners can also be deployed where a single pair of antennae is insufficient to support the wireless installation (due to adverse environmental factors).

Antennae Types. Typically, in the case of a permanent installation such as a theatre, directional antennae would be used to focus the RF pick-up within a specific area (such as the stage). This does not, however, suit all purposes. Alternative antennae include the Yagi antennae (Yagi-Uda array) for long-range pick-up, and omnidirectional antennae.

A Word About Cabling…

Wireless antennae are designed to be used with 50Ω cables. These cables are very reliable but do suffer from signal loss, so should be kept as short as possible. Boosters can be used to compensate for signal loss, although there are limits as to what is feasible before ultimately compromising the system as a whole.

TheMicStore

TheMicStore

This month's Expert Witness, Matt Lawless, and Steve Helm started TheMicStore to provide a complete professional solution for all your microphone requirements. The company operates primarily online, but does have offices and a showroom in West Yorkshire, UK.

W www.themicstore.co.uk

T +44 (0) 333 577 5577

>

UHF Systems

The UHF bands are the most sought-after for efficient and long-range wireless systems, in a regulated space that ensures at least some protection from interference. This is why there has been so much turmoil of late around these bands, because governments are desperately trying to sell off prime bandwidth to the highest bidder, not necessarily taking into account the needs of the audio professional. The timely interference by a good number of people from our sector has helped secure at least some of the prime UHF space in many territories (in the UK, Channel 38 licensed and Channel 70 unlicensed, for example). Strictly speaking, ‹UHF› extends past the 2.4Ghz ISM band, but in audio wireless terms this isn›t included by implication and we normally mean up to 800-900MHz.

The market has both analogue and digital systems.

1

2

[1] Sennheiser manufactures a wide range of wireless systems from entry level single-person systems to the high end 3000 and 5000 series systems. Its most recent wireless launch was at the Frankfurt Musikmesse this year, where it launched Neumann capsule heads for the 2000 series.

The main wireless system begins with the Evolution Wireless systems – the ew 100, 300, and 500 G3 systems. The 100 series combo kits were launched at the InfoComm show last year and include all of the usual variations, including lavalier, handheld, and body pack variations.

More recently, the company announced firmware version 1.7.0, which brings with it a media control protocol for its 2000, evolution wireless ew 500 G3, and evolution wireless ew 300 G3 series.

This new open protocol enables rack-mount devices of the series to communicate directly with media control units in an Ethernet network (UDP/IP) and to be integrated into larger audio/video control systems. The units can then be remote-controlled and monitored directly from a central control panel, such as those supplied by Crestron and AMX. Individual solutions from system providers or control via an Apple iPad/iPhone or a mixing console are equally possible.

Earlier this year, Sennheiser won a ProLight + Sound MIPA award for the high-end SK 5212-II body pack transmitter, its smallest body pack to date. It has an extended switching bandwidth of up to 184 MHz, adjustable transmitter power, and the new Low Intermodulation Mode that increases interference immunity, especially during multi-channel operation.

www.sennheiser.com

[2] AKG has a selection of wireless systems for you to peruse, the newest and shiniest being the DMS 700 V2. Aimed at broadcast, installed, and live sound applications, this system has been designed to provide the required number of channels in every situation. It is the first professional digital wireless system that conforms to both FCC and European ETSI guidelines, and therefore can be used worldwide. Version 2 now has low latency and excellent link quality and coverage. It also has new 512-bit encryption for protection of sensitive audio transmissions. The transmitters and receiver have a range of up to 155MHz. The digital transmission eliminates the distortions and significant noise levels at high audio frequencies that can occur with analogue wireless systems. The system consists of the DSR 700 V2 digital true-diversity receiver, with the DPT 700 digital bodypack transmitter and the DHT 700 digital handheld transmitter. There are a wide range of AKG microphones that can be used with the system, and a range of antenna systems available.

There are also five analogue systems available: WMS 4500, WMS 450, WMS 470, WMS 40 Mini and Perception Wireless. In the digital range, the DMS70 system is also available.

With the optional HUB 4000 Q, several AKG wireless systems can be integrated into a HiQnet system. The wireless system can be remote-controlled and monitored with the System Architect software system, from a PC, the AKG Wireless iPhone app (which can be used on an iPhone, iPod touch or an iPad) or VM2, from a Soundcraft Vi mixing console.

www.akg.com

ISM Systems

A number of wireless systems operate in the 2.4Ghz band. This is one of a number of allocated ISM bands (Industrial, Scientific, and Medical). Certain RF sources are limited to these ISM bands, to avoid interference with others. Essentially, the bands are unregulated and license-free, but you have to accept that you might be sharing the ether with microwaves, computer networks, Bluetooth devices, and more. Also, range may be more limited than in the UHF systems due to the additional power required to operate a 2.4GHz system at an equivalent range. However, many people use the 2.4Ghz systems with great success and there are clever technologies available, designed to avoid the dreaded interference as much as possible. 2.4Ghz systems are often called digital systems because it's digits that are transmitted, but this shouldn't be confused with the UHF-based digital systems. That is, the 'digital' moniker does not indicate RF band.

Line 6

Line 6 has a range of various 2.4Ghz wireless system components and bundles in its fourth gen XD-V, divided into vocal and guitar types. The Relay guitar series has both stompbox and rack systems, while the vocal range has a variety of feature sets and build types based on the belt pack or handheld transmitter, plus rack receiver. The handhelds feature up to 10 virtual microphone models, while the body packs feature up to nine EQ filter models to account for placement. Encoded DCL (Digital Channel Lock) technology distinguishes XD-V75 digital audio from third-party signals.

www.line6.com

Zaxcom

Zaxcom's range of 2.4GHz digital wireless products incorporate a few special features. An internal timecode-referenced audio recorder backs up all wireless transmissions on a removable microSD card. Zaxnet is an RF network that enables distribution of remote control signals, timecode and metadata. For example,

ISM Systems

production sound mixers can remix audio from multiple, synchronised transmitters, creating a virtual multi-track playback and re-record system. The latest addition to the range is the TRX742 plug-on transmitter.
www.zaxcom.com

AKG
AKG launched its DMS70 2.4GHz system at the NAMM show earlier this year (DMS 700 is the flagship digital UHF system). The company terms it a "true uncompressed digital wireless system" and it transmits 24-bit, 48kHz digital audio. The system components are available separately or in prepared packages, and include dual or four-channel receivers, and both pocket and handheld transmitters. Features include dynamic frequency selection, and bi-directional comms between receiver and transmitter for status warnings and more.
www.akg.com

Sabine
Sabine's SWM7000 True Mobility system is one of three systems the company offers. The other two are in the alternative Region 2 ISM band of 915Mhz. Sabine claims that its Smart Spectrum technology allows up to 70 simultaneous users and a 20Hz to 20kHz frequency response. Other features in the system include the FBX Feedback Exterminator system, Mic SuperModelling library of 'virtual capsules', 10 parametric/FBX filters per channel, digital dynamics with the Adaptive De-Esser, and Crestron I2P compatibility.
www.sabine.com

UHF Systems

4

3

5

[3] Shure has just introduced a brand new flagship wireless system, Axient. Its USP is that it not only detects interference but can avoid it by automatically changing frequencies, undetected by the user, to avoid interference. Axient comes with a suite of spectrum management tools that integrate spectrum analysis, channel allocation, and device management in a network-based platform. Axient Spectrum Manager captures a detailed scan of the venue and displays it graphically; it can also listen in on a particular signal or store the data from a site survey to be used later. The system also offers ShowLink Remote Control, which provides real-time remote control of all transmitter parameters. The receiver is the AXT400, with up to 228MHz of wideband tuning. Transmitters are the AXT100 bodypack, or the AXT200 handheld (dual-diaphragm condenser, switchable polar patterns).

Shure has a wide range of other wireless system for many different applications. These include the ULX-D 24-bit/96kHz digital wireless system, UHF-R – Shure's flagship networkable system, the ULX high-end musician/installer system, the SLX single channel systems, the PGX vocalist/musician systems, and the FP broadcast-optimised systems.
www.shure.co.uk

[4] Audio-Technica currently offers five wireless microphone systems for a variety of applications; top-of-the-range is the 5000 Series. Designed for use on tours, in stadiums, concert halls, and various other demanding audio applications, the system comes with two independent True Diversity receivers in a single full-rack housing. Up to one thousand selectable channels are offered in each of three available UHF bands. Receivers may be linked to form a complete system in which the built-in IntelliScan capability automatically determines and sets the best available frequencies on all linked receivers. Computer management and control is possible – the 5000 Series receiver has an onboard Ethernet interface for monitoring and controlling system parameters with included AEW Control Interface software. Multiple system configurations are available, with handheld vocal microphone/transmitters and UniPack body-pack transmitters designed for use with lavalier, headworn, and instrument microphones, as well as electric guitars. Dual compander circuitry processes high and low frequencies separately. Stray RF is blocked by the digital ToneLock squelch; the digitally encoded tone also communicates transmitter data for receiver display.
www.audio-technica.com

[5] Sony's flagship offering in the wireless microphone system market is the DWX Series. The system transmits and receivers 24-bit/48kHz digital audio, and using Sony's original WiDIF-HP codec, delivers a wide dynamic range of more than 106dB, a wide frequency response of 20Hz to 22kHz, and a very good transient response. They DSW Series transmits and receives digitally modulated and encrypted data to minimise the risk of interception. The system includes the DWM-02 handheld transmitter, with interchangeable mic capsules (CU-C31, CU-F31 and CU-F32); the DWR-R02D dual channel rackmount receiver; and the DWR-S02D portable receiver. The rack-mounted receiver is a new model with support for electric guitar and bass amplifier connections, having added 1/4-inch unbalanced phone outputs with attenuation control function. The new version also supports 100V to 240V AC and 12V DC power. The portable receiver has a wide bandwidth up to 72MHz, three times the level available with the previous models.

In addition to the DWX Series, Sony's full line includes the UWP Series of UHF synthesised wireless microphones; designed for stable audio reception and interference-free multi-channel operation in news-gathering, AV presentation, entertainment, live event, and corporate applications.
www.sony.com/proaudio

There are many reasons for you to choose the Nova73 HD.
Here are the most important.

ACTIVE
STANDBY
Nova73 HD
FLEXIBILITY
RELIABILITY
PERFORMANCE
QUALITY
PREPARE
TEST
MODULE TAKEOVER
LAWO
AES3 LOCK
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
Lawo AG | Rastatt/Germany

Nova73 HD — just what a router must be. Continuous operation, future-proof design and outstanding performance — when you choose the Nova73 HD, you've chosen cutting-edge technology. In addition to its superb reliability, the Nova73 HD excels with its intelligent architecture and outstanding serviceability. For example, not only can the hot-pluggable components be exchanged while the unit is running, system additions may also be installed at any time during operation — even while the Saturday night live show is on-air! No surprise then that the Nova73 HD is convincing an ever-increasing number of the most demanding broadcasters, and has become a worldwide reference for high-performance audio routers. Lawo AG, Germany | www.lawo.de

Visit Lawo at IBC 2012 in Amsterdam
September 7 – 11, Hall 8, Booth C71

Networking Audio Systems

LAWO

UHF Systems

6

9

7

8

[6] Electro-Voice has a variety of wireless microphone systems. Options available are the R300, designed for the entry-level professional and offering the EZsync infrared transmitter update feature. It is available as a handheld (with PL22 dynamic microphone), lapel (ULM18 directional microphone), or headworn (HM3 omni-directional microphone) system. Other systems include the RE-2, which comes with either the BPU-2 bodyback transmitter or the HTU2 handheld, complete with RE-2 wireless microphone receiver, which operates over 28MHz. The RE-2 Pro system allows more systems in one location, longer range, and more microphone head choices. The REV system is the top offering, with two handheld options available plus either the REV-S, designed for one-channel applications or larger installations that require an odd number of receivers; or the REV-Dual, which includes two UHF receiving channels. Both have antenna pass-through connections to drive six channels with just two antennas.
www.electrovoice.com

[7] Audio Limited specialises solely in the manufacture of wireless microphone systems. One of its neatest bits of kit is the miniTX, a tiny remote controlled, concealable transmitter. The unit is just 82mm high by 28mm wide, and 16.5mm thin, and weighs 90gms including batteries. Splash proofed against sweat when worn close to the body, it can be switched on and off, frequencies checked and changed, and battery status monitored using the Switch iR controller. It can also be switched on or off through clothing with the Control-X controller. The company's RK2040 rack-mounted receiver can accommodate up to four diversity receivers and can be mains powered via an AC/DC adaptor, or powered from any DC source with voltages from 10-18 volts (for example, a car battery), via a four-pin XLR socket. Up to 92 racks can be linked together with only one cable needed to link to a PC for remote monitoring.
www.audioltd.com

[8] Beyerdynamic has a large selection of wireless microphone systems available. Its top-of-the-range system is the Opus 910. A selection of receivers, transmitters, and interchangeable microphone heads are available for the system, as well as an extensive range of accessories and the option of PC control for advanced system set-up. The UHF bandwidth of 72 MHz is treble that of its predecessor, the Opus 900. Three receiver versions are available for the Opus 910 system, each with 2880 selectable UHF frequencies per frequency range. A number of pre-programmed frequency groups are also available, to ease the set up of multi-channel systems – pressing the SCAN button searches these groups for interference-free frequencies. The carrier frequency is then sent to the transmitter via an infrared signal and set up automatically by the ACT (automatic channel targeting) interface.
www.beyerdynamic.com

[9] Lectrosonics manufactures a wealth of wireless equipment, and a scour round its website to check out its full list of products would be a good idea if you are in the market for wireless bits and bobs. The HH Digital Hybrid Wireless Handheld Transmitter uses standard thread-on capsules and includes compatibility nodes for Lectrosonics 200 Series, 100 Series and IFB receivers, as well as some systems from other manufacturers. The Venue Series of modular receiver systems is another Digital Hybrid Wireless product (it also works with a variety of analogue transmitters), with six-channel modular configuration, built in zero-gain antenna amplifiers, and 256 synthesised UHF frequencies per receiver module. Full systems available from Lectrosonics include the TM400 wireless system for test and measurement, which replaces the long cable between calibrated microphone and test equipment. The receiver offers SmartTuning and the transmitter converts microphones with XLR jacks to wireless operation.
www.lectrosonics.com

[10] db Technologies offer four wireless systems. Top of the range is the PU 920 M Wireless Mic System; a digitally controlled 16-channel system that consists of a UH920 M handheld transmitter with a beyerdynamic TG-X 58 capsule, and a 920R receiver unit. The company says the system offers the "latest structure in SMD technology", resulting in high operating reliability and long battery life due to low current consumption. The receiver has removable antennas allowing them to be repositioned, or to allow the use of the optional active antenna splitter – AS6W – in multi-channel applications.
www.dbtechnologies.com

[11] MIPRO has the ACT-82 Digital Receiver and the ACT-82a Wideband Digital Receiver, with the ACT-818 and ACT-828 (wideband single-channel and dual-channel respectively) receivers due to be released soon. There are two handheld digital transmitter options; the ACT-8H and the new ACT-8Ha, both with encrypted audio. Coming soon is the ACT-80H wideband digital handheld transmitter. There are also two digital bodypack transmitters, with a third on the way. The newer ACT-82a receiver features DigitnamicPlus technology to eliminate compander noise, and an increased 120MHz bandwidth for increased pre-set compatible systems. The corresponding ACT-8Ha transmitter with built-in antenna syncs with the receiver automatically.
www.mipro.com

[12] Trantec has put together six packages within each of its four series of wireless systems, not to mention the 'Racked n Ready' options for the S4.16, S5.3 and S5.5 series – which come in five different flavours too, so lots of choice depending on the application in mind. The S5 Series is the flagship of the range, based upon the popular theatre and broadcast S6000 system. The S5.5 has up to 35MHz of bandwidth that enables

10

13

12

11

the user to run up to 24 channels simultaneously. The receiver offers up to 1400 selectable frequencies, while the handheld transmitter can be programmed with a built-in infra-red data link.
www.trantec.co.uk

[13] Micron Wireless has a range of options, including full kits for ENG and the TX700 transmitter, SDR770 receiver and MR700 monitor receiver; three mains receivers aimed at studio and theatre work, plus Monitor TX, a 1U rack mount transmitter which gives one or two channels. The EXP-FK256BSDR Full Kit is aimed at professional sound recordists working on ENG or location recording, and operates over four UHF bands in Europe and up to six in the USA and Canada. The kit is supplied with the small diversity receiver SDR550, with two antennas and audio output cable, and the body-worn transmitter TX700B with belt clip and antenna.
www.micronwireless.co.uk

ULTRASONE
(CeCe Rogers)
S-LOGIC plus
MuMetal
High Definition Headphones
THE headphone company

> “As the fight for every free slice of spectrum gets ever harder, having a scanner in your radio mic receiver could well save your RF bacon... and your eggs.”

Shure
UR5 & UHF-R updates

Portable Wireless Receiver

Shure has been a big name in the world of wireless for quite some time now. When handhelds were needed that could work across Cardiff’s Millennium Stadium, Mr. Shure got the business because his handhelds did the business. However, one area that Shure hasn’t been so active in is that of location sound. From ENG and documentaries to drama and film, there’s a world of sound that relies on (or at least has to have the option of) dragging your kit away from the comfort of 220 volts at 50Hz. Yes, it’s the world of battery powered receivers.

UR5

For this review I got to play with some new toys at the pro end of Shure’s range, including the new UR5 battery powered diversity receiver. So let’s start at the ‘camera’ end so to speak. And Shure is very definite that this is a product to be used with a camera – the main audio output has a little picture of a camera underneath it.

The UR5 is a small, well-finished metal box, roughly half of which contains the two AA batteries, and the rest the electronic goodies.

One of the things that sorts the pros from the wannabes is powering: stuffing Duracells (other expensive batteries are available) into a radio mic receiver can be costly and pros are notoriously mean, not to say stingy. My UR5 came with the optional Anton Bauer cradle to enable powering from a camera via the five contacts on the back of the UR5, and Shure has a custom Li-On battery pack that I haven’t seen but Shure claims will power your receiver for eight hours.

To do pro wireless you need diversity, you need robustness, you need exi-bility and ease of use, and you need as much of that wireless magic as you can get. The UR5 is an antenna diversity system rather than a dual tuner, and offers hundreds of possible frequencies neatly arranged in 26 groups. Audio output is on a nice locking TA3 connector, with mic and line levels available and the option to send some tone – great for annoying camera operators. The receiver has an easy to use two-position on/off switch, and a separate headphone monitor output. Alongside the LCD you get LEDs for signal strength and battery condition on the top plate where they are easy to check with the receiver buried in your bag.

The UR5 has a couple of neat tricks up its sleeve. It ‘syncs’ for itself and scans the RF neighbourhood looking for free channels, or even the group with the most free channels. When you flip down the battery lid you get access to the function buttons: Exit, Enter, and Scan; and between the last two a little red IR window labelled ‘Sync’. So, first you turn off your transmitters and let the UR5 scan the spectrum, and when you’ve found a nice empty channel use the sync function to automatically tune your sync enabled transmitter to instantly synchronise with the receiver. “Darn o teisen”, as we say in Wales (other terrible mistranslations of English idioms are available): piece of cake. If you have a number of systems to set up, you can identify the best group and sequentially scan and sync in your systems in double quick time.

Even more powerful is the full-fat scan option.

>

THE REVIEWER
ALISTAIR McGHEE began audio life in Hi-Fi before joining the BBC as an audio engineer. After ten years in radio and TV, he moved to production. When BBC Choice started, he pioneered personal digital production in television. Most recently, Alistair was Assistant Editor, BBC Radio Wales and has been helping the UN with broadcast operations in Juba.

Information

- **Compact and portable diversity wireless for ENG, professional field and media productions**
- **Antenna diversity system**
- **80Mhz tuning range (single band version)**
- **UHF-R & Axient compatible**
- **MTX multiple transmitter switching**
- **Flexible power options (li ion pack, PSU, or 2 x AA, cradle option)**
- **Inc. camera shoe mount and stand strap mount, other optional mounting accessories available**

Manufacturer
Shure Distribution
www.shure.co.uk

Price Details
UK: Shure UR5 £969.00 (exc.VAT)

This scans the RF band in 25kHz increments and produces an on-screen zoomable spectrum display, which you can navigate to find the best spot for your mic. The UR5 retains the scan information in memory even after power down. How clever is all that? As the fight for every free slice of spectrum gets ever harder, having a scanner in your radio mic receiver could well save your RF bacon... and your eggs.

One other great feature is MTx – multiple transmitters. This allows you to set up a list of transmitters in your UR5 receiver that you can cycle through without having to change detail settings. Using the scan function you can populate your MTx list automatically, and then sync your transmitters to the list. You can even use the IR sync abilities to copy and paste an MTx list from one receiver to another, and have multiple entries for the same receiver but with different volume settings on the output.

UR1 & UR1M Bodypacks

Also, as part of the review kit, I had the UR1 and UR1M transmitter options. Powered by AA batteries, the UR1 features the IR sync option, an LCD display with channel and frequency information alongside a custom memory function, and a battery level display. Tuning is in 25kHz steps if you want to do it manually. The mic input is a locking TA4 connector, and there's a top mounted on/off switch with associated green power LED. Both the UR1 and UR5 are comfortably dimensioned, hand sized, and finished to feel good in operation.

A smaller option is the UR1M (M for micro), which packs most of the same features into a smaller case. So small in fact, it can be sewn into Beyonce's top hat for her performance at the Oscars... I kid you not. The UR1M weighs only 88 grams with batteries against 130 for the UR1. Despite that, Shure claims identical audio performance. The most noticeable user differences between the models are a smaller LCD with less info on the UR1M, and the absence of the power on LED.

When you survey all this wondrous set-ability, you realise Shure has mixed some of it from its mains-powered line, like IR syncing with functionality from its Wireless Workbench software – scanning, and added some entirely new ingredients like Mtx.

UR2 & UR3 Handheld and Plug-on

Alongside the UR1 and UR1M bodypacks, I also got to play with the UR2 handheld and the UR3 plug-on transmitter. Shure UHF-R is nothing if not a system!

The UR2 came out of the box with an SM58 capsule (the capsules are interchangeable as we shall see) and offers all the features of the UR1 including sync, which is a feature on all transmitters across the series. There's an LCD with the same information, though not an LED to show power on.

The UR3 is the first plug-on from Shure, and like the UR2 it's powered by two AA batteries and features the familiar LCD screen. Again both these transmitters are very well made and feel utterly professional. The UR3 has a recessed 'on' switch, which means that audio engineers who bite their nails (that's all the men and most of the women – it's a stressful occupation, you know) will sweat to operate when they have to grab a hand held because Beyonce's hat has fallen off. It's great to have a plug-on handy, and the UR3 offers +12v and +48v phantom power alongside a high pass filter and the ability to deploy your favourite dynamic mics. And in a stroke of genius, there are ten memories in which you can store the settings including gain, phantom, and filter frequency for your favourite mics.

Having reached the great age of eleventy one, my eyes are not what they used to be and I appreciated the back light of the UR3. And talking of lighting, the UR3 has very handily but discretely placed LEDs for power and level – you can check them while talking into the mic. What will they think of next?

In Summary

The Shure UHF-R series is a comprehensive, high quality system that offers everything you need to build a professional package. The UR5 has features that set new standards in spectrum scanning and ease of use with multiple transmitters. Whether a poor old single camera operator will have time to get the best out of all of these... is their problem. You should have hired a sound mixer.

There are still choices to make: I think a DC powering option that better lends itself to multiple UR5s in a location bag with an NP1 would be very attractive.

The depth of the sophistication of the Shure system is mightily impressive. For people working under pressure (and aren't we all?) the feature set might well deliver you the best chance of finding and operating a usable frequency in the brave new world the government are squeezing us into in channel 38. We all know that is going to be a nightmare, and if you work in congested RF environments with multiple transmitters and are not afraid of menus, the Shure UHF-R series has an awful lot to offer.

THE FIRST TIMECODE-AWARE LOUDNESS
SmartMeter v3
01:00:00:00
Meet us at IBC / booth 8.A13
TRINNOV AUDIO
www.trinnov.com
-22.6
LUFS
-20.1
LUFS
5.1 VF
integrated
short term
-21.1
GATED
LUFS
-24.7
Stereo VF
integrated
short term
-22.9
GATED
LUFS
-23.3
LUFS
-24.1
AD
integrated
short term

> " . . . you need something that you can set up easily, is quick to get into record, and with controls and features that are highly visible and ergonomically useful at a live venue – and, if it can integrate with a certain popular live console, so much the better."
>
> Stephen Bennett

Steinberg **Nuendo Live**

Live Recording Software

Steinberg's Nuendo is well regarded in the post production field for its wealth of features and overall stability, but in the live arena you need something that you can set up easily, is quick to get into record, with controls and features that are highly visible and ergonomically useful at a live venue. And, if it can integrate with a certain popular live console, so much the better.

Enter Nuendo Live. It's based on Nuendo 5.5 (reviewed in *Audio Media* March 2012) though whereas Nuendo 5.5 features a multi-window layout, Nuendo Live boots smartly into a single window – no messing about. Projects are created with the same number of tracks as your interface has audio inputs – so as soon as the Project is created, just click on the Record box and start recording. If you've already set up your preferences, pressing the [CTRL]/[CMD] and [*] keys will immediately arm tracks, engage the recording lock function, and start capturing your audio. You really can't get much quicker than that.

Menus are kept to a minimum, which suits the immediacy of the application. Most DAW users will be at home here though, with the Track list to the left, audio recording regions displayed to the right, and Transport and information along the top of the window. Multi-channel metering is via a meter bridge just above the timeline, while individual channels display their level to the right of the Track list. The Tracks themselves feature pan sliders (if mixing to stereo, accessed by clicking on the pan display), level faders (likewise), and mute and solo buttons. Master level, solo, and mute controls are at the top of the Track list. The MTC button lets you record MIDI Time code alongside your audio for postproduction synchronisation duties.

Although Nuendo Live features some traditional menus, many of the settings can be accessed by clicking on the relevant section under the toolbar. Most of these open the settings window. Also, Project settings such as the sample rate (up to 384kHz with suitable hardware), bit depth (including 32-bit float), file type, frame rate, audio driver, pre roll, and more are all here.

The output mode buttons, when set to stereo, output a stereo feed, such as you'd use for mix-down, while the multi-track mode routes audio to individual outputs – great for the 'virtual sound-check', without the band.

Though there's a traditional transport bar at the top of the screen, clicking on the Record panel box will bring up a window where you're likely to spend most of your time when recording. Here you can add and remove and name markers, insert meta data for your session, and see an overview of Project and pertinent timings. There's a button to locate the song position line to the end of the current recording, and a lock button to stop you accidentally interrupting a recording. Most importantly, there's the Record button. Click on the Arm all Tracks button, then Record, and you're ready to go.

Editing is limited to a marquee-style tool that allows you to select a range over a region or regions and move the selection to a new location, plus the usual splicing, dragging, and resizing of the regions themselves. A handy notepad allows you to save session information.

You can quickly mix down to WAV or MP3, and export the session in the AAF format for further mixing and processing in another DAW. You can export the whole project or a delimited range defined by the cycle locators and you can, of course, open the Project in Nuendo 5.5 proper as well.

Nuendo live's functions can be controlled directly from Yamaha's range of CL series live consoles but unfortunately, I didn't have one to hand, so I hauled my laptop and a Focusrite 56 interface down to a local venue to record a band. Nuendo Live performed flawlessly – once the desk was connected up to the interface, a high quality recording was made without breaking a sweat and an MP3 file mixed down and drop-boxed off for the band after the gig.

Back in the studio, I loaded the Project into Nuendo 5.5 without incident. The only issue I had was the use of a USB dongle. I'd prefer an option to authorise a specific computer directly.

Conclusion

There's no proper mixer, no plug-ins, no automation, and no busses or inserts – but that doesn't really matter. Nuendo Live has one purpose in life – to capture multi-channel audio reliably and quickly, to enable you to sound check, record from a desk, create an after-gig rough mix, or provide audio files for further processing – and as it's based on Steinberg's robust audio technology, it fulfills this purpose admirably. **AM**

From The Manufacturer

"Nuendo Live's focus lies entirely on providing a professional multi-tracking software solution for live recordings, adding further to the highly acclaimed Nuendo product range. Now we can say for sure that we've every aspect of audio production covered: from recording live performances to creating high-end productions, smooth interaction between Nuendo Live and Nuendo 5 is guaranteed at all times, not to forget the perfect integration of Nuendo Live with Yamaha's new CL consoles."

Timo Wildenhain,
Nuendo Product Marketing Manager, Steinberg

THE REVIEWER

Stephen Bennett has been involved in music production for over 25 years. Now based in Norwich he splits his time between writing books and articles on music technology, running his own Chaos studios and working in the Electroacoustic Studios in the School of Music at the University of East Anglia. He's also a filmmaker with several music videos and short films to his credit. www.stephenjamesbennett.co.uk

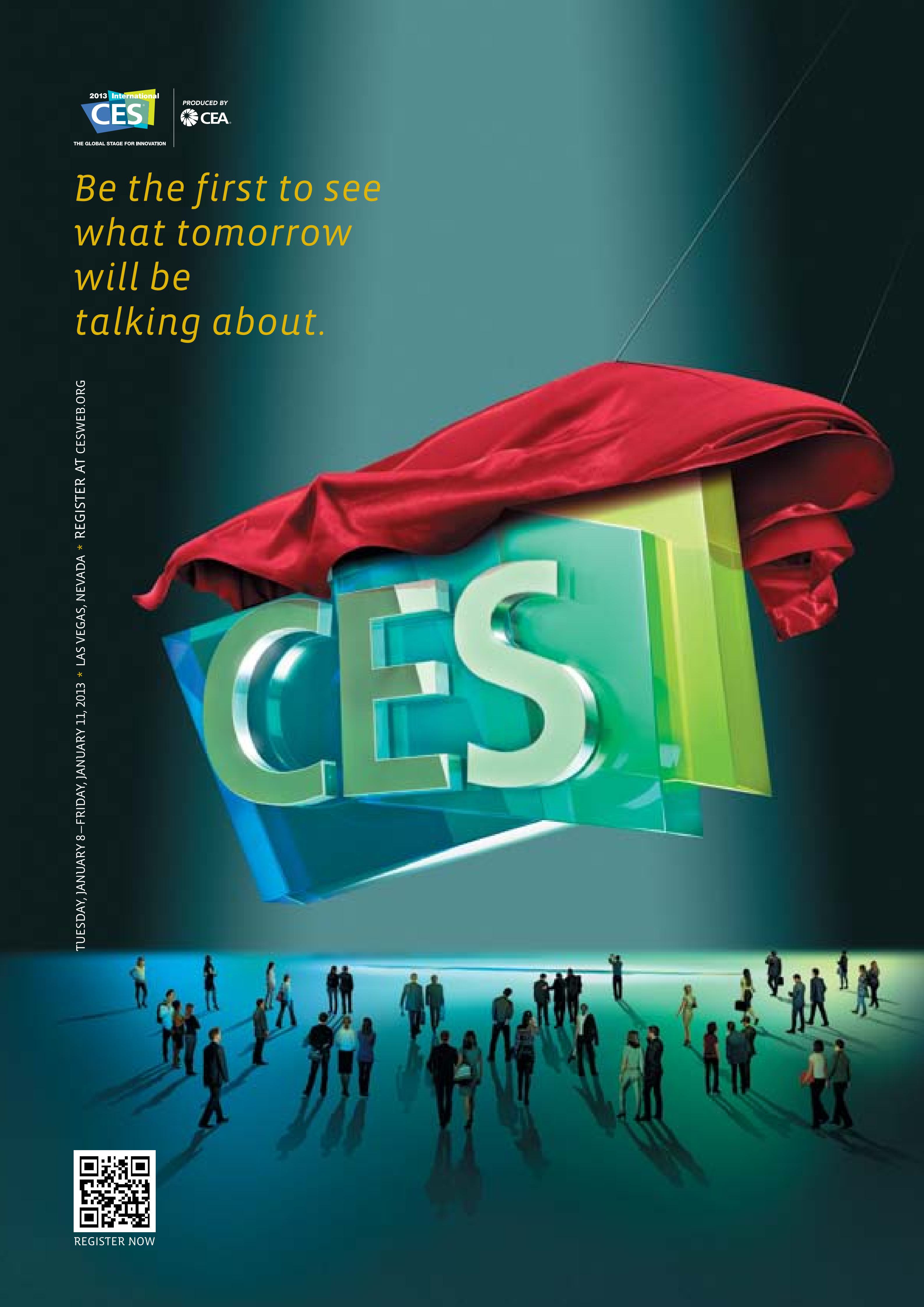
Information

- **Integration with Yamaha CL-Series Consoles**
- **Steinberg Nuendo audio engine**
- **Advanced session management and zero set-up time**
- **24+ hours recording time**
- **Virtual sound check**
- **On-the-road editing**
- **Mac OS X 10.7 or Windows 7 (or higher)**

Manufacturer
Steinberg
www.steinberg.net

UK Distributor
Yamaha Music Europe Branch UK
www.yamaha.com

Price Details
UK: £256.00 (exc.VAT)

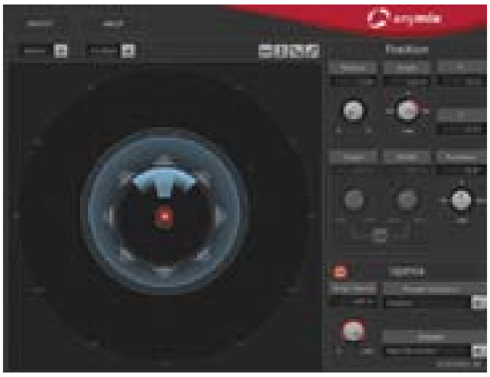


2013 International CES
THE GLOBAL STAGE FOR INNOVATION
PRODUCED BY CEA

Be the first to see what tomorrow will be talking about.

TUESDAY, JANUARY 8—FRIDAY, JANUARY 11, 2013 * LAS VEGAS, NEVADA * REGISTER AT CESWEB.ORG

REGISTER NOW



"You'd need quite a few different individual processors to even approach the range of Anymix's function, so having them wrapped up in a single easy to use plug-in makes the whole process of balancing audio for visuals simple and predictable…"

Stephen Bennett

Iosono **Anymix**

Surround Upmix/Downmix Plug-In

Iosono's Anymix plug in allows you to upmix your audio from mono to 8:1 surround – or downmix your multi-channel extravaganza into a dub-ready format. It comes in two flavours: Anymix Pro and Anymix Essentials. The Pro version essentially adds more control, including distance-dependant loudness and timbre. Anymix is available for both Pro Tools, and Mac and PC under VST friendly hosts. It requires an iLok for activation, but Iosono helpfully provides a 30-day trial so you can try before you buy.

Once installed, you insert Anymix into your DAW in the traditional fashion. The plug-ins' window is dominated by the 'stage view,' which displays the position of the input channels, the output configuration, and the values of various parameters. To the right of this are the controls for position and movement, while the upmix controls reside at the bottom of the window.

The input channels are displayed in red while the output channels appear as grey speakers, making it relatively easy to drag around your various input channels or group them together and move them as a whole. Each can have a parameter (volume, spread, etc) displayed alongside them, chosen from the Display pull-down menu. The parameters for the whole input group can be adjusted via the knobs displayed in the Position panel, while individual inputs have their own control windows that appear if you double-click the input icons. You can't automate these individual parameters, but they are saved within your session and they cover the Radius/Angle and X/Y position, gain, LFE 'bleed', the spread between two or more output channels, delay, and the facility to link the parameters of input channels. The Distant-dependant Filters automatically adjust level and EQ to make distant sounds quieter and duller. There are several EQ/Loudness curves available and it works very well, allowing to you to move close sounds off into the distant with scary realism. All the standard surround formats are supported at I/O.

Power Up

It's when you start to utilise Anymix's upmix facilities that the plug-in's real power becomes apparent. Under the hood, the upmix algorithm analyses the incoming audio signal and separates it into direct sound and ambient sound components – obviously, your audio will need to have some ambient sound for this to work properly! These parts can be placed in the surround field as you wish. One thing Iosono points out is that if you use a lossy audio format (such as MP3) the algorithm may mistake compression artefacts as the ambient portion of your audio. While the direct sound parts are sent to the "direct sound stream" and can be placed at the "virtual" front speaker configuration, the ambient sound parts can be modified and arranged around the virtual stage as desired.

There's some clever processing going on here, and I was very impressed when I re-processed the stereo audio channels from a short film that I made in the days before domestic surround systems. It worked best when the audio contained significant ambience. The upmix section has a few parameters you can twiddle with (Divergence and Dry/Wet balance, stage width, ambience front, rear and delay) along with several useful presets that can be used as jumping off points for your own mixes. Anymix Pro has additional sections that control the Dry/Wet mix, Divergence, and stereo width of the direct audio stream and gain, front/rear balance, delay, and a low pass filter for the ambience section. There are also extra parameters useful for fine-tuning the distance dependant EQ, matrix decoding and the LFE channel. In Nuendo, the plug-in can be used directly as a surround panner – but it can also perform this function in other hosts when instanced into the last insert slot. As most of the parameters can be automated, you can make fine adjustments to your upmix as the audio progresses.

Conclusion

Anymix was a joy to use and had me dragging out some of my bland stereo mixes to give them the surround treatment. It's also a useful panner/spatialiser for working with traditional multi-channel mixes. I used it to mix the score for a web TV series and found the distance dependence feature valuable for sitting sounds correctly in the rears. You'd need quite a few different individual processors to even approach the range of Anymix's function, so having them wrapped up in a single plug-in makes the whole process of balancing audio for visuals simple and predictable – and in an area where time is really money, Anymix will pay for itself many times over in a busy post production facility. **AM**

From The Manufacturer

"Ever since multi-channel surround productions made their way to movie, game, or music sound, mixing and post production engineers needed to convert or redistribute mono and stereo audio material to multi-channel formats. Often the audio is only available in stereo or multi-track recordings do not exist. Here, Anymix comes into play. We want to give sound designers a tool for an easy, yet precise creation of surround mixes. Anymix is really intuitive to use and saves time during the mixing process, but it still gives the mixer control over important parameters, offering a lot of features for individual panning and upmixing."

Katja Lehmann,
Iosono Sound

THE REVIEWER

Stephen Bennett has been involved in music production for over 25 years. Now based in Norwich he splits his time between writing books and articles on music technology, running his own Chaos studios and working in the Electroacoustic Studios in the School of Music at the University of East Anglia. He's also a filmmaker with several music videos and short films to his credit. www.stephenjamesbennett.co.uk

Information

- **VST/RTAS plug-in for Windows XP (SP2)/Vista/7 or Mac OSX 10.6.2 (or higher)**
- **Convert any input set-up from mono to 8.1 to any output format from stereo to 8.1**

Manufacturer
Iosono Sound
www.iosono-sound.com

Price Details
Anymix Pro: €299,00 (inc. 19% VAT) / € 251,26 (orders outside Germany). Special offer of 40% discount until September 15.
Anymix Essential: €159,00 (inc. 19% VAT) / € 133,61 (orders outside Germany)

NEW FOR 2012

More fresh ideas for your musical world

DR-40
LINEAR PCM/MP3 RECORDER
WITH 4-TRACK CAPABILITY

DR-100 MKII
PRO LINEAR PCM RECORDER
WITH METAL CHASSIS

DR-V1HD
HD VIDEO/LINEAR PCM
RECORDER

iM2
STEREO CONDENSER MIC
for iPad, iPhone and iPod
** iPhone not included · Free Tascam PCM Recorder App available*

iU2
AUDIO/MIDI INTERFACE
for iPad, iPhone and iPod

iXZ
MIC/GUITAR INTERFACE
for iPad, iPhone and iPod

US-125M
USB AUDIO INTERFACE WITH
MIXER FUNCTIONALITY

DP-24
24-TRACK DIGITAL PORTASTUDIO

www.tascam.com | www.tascam.co.uk | www.tascam-europe.com

© 2012 TEAC Corporation. All rights reserved.
All specifications are subject to change without notice.

TEAC UK Limited
Suites 19 & 20, Building 6 | Croxley Green Business Park | Hatters Lane | Watford | Hertfordshire WD18 8TE | UK
Southern Area Sales Manager: Alex Farrell | Mobile: 07779-795656 | Mail: alex.farrell@tascam.co.uk
Northern Area Sales Manager: Russ Fitton | Mobile: 07836-329281 | Mail: russ.fitton@tascam.co.uk | www.tascam.co.uk

TASCAM®
TEAC PROFESSIONAL

> "This cigarette packet-sized box takes MADI in and out on coax and turns it into USB 2 goodness, pluggable into every computer in the world and probably the TARDIS too."
>
> Alistair McGhee

DiGiCo **UB MADI**

MADI-to-USB 2.0 Interface

I hope Lemmy isn't on Facebook, or if he is, I hope it's really a spotty 18-year old Motorhead intern who posts for the great man. I say this because years ago I read a Lemmy quote in which he berated modern rockbands for spending all their spare time on laptops, turning their back on the more traditional rock and roll pastimes of excess, wreckage, and mind expanding substances. Those TVs aren't going to throw themselves out of the windows now, are they? It's a shame in a way, Lemmy and the Laptops is a great name for a band.

But just like everything else, Rock and Roll is succumbing to the computer. Mixing desks, outboard, and acoustic software, live is awash with computers and naturally – as you have to drag your show from town to town – the laptop is king. But the laptop has a weakness: you can't open it up and stuff in a PCIe sound card for multi-channel recording. Sure, you can buy an external box, but how are you going to get 48 channels out of your mixing desk into a wimpy little analogue box? Even ADAT isn't going to be enough unless your desk has got six channels of ADAT. No, Ethernet is a much better bet, but what would be damned convenient would be something to interface with the Motorhead of multi-channel digital audio – MADI, or AES 10.

MADI has been around for over 20 years and is supported by lots of console manufacturers in the live market, incuding DiGiCo, which has provided its UB MADI system for this review. This cigarette packet-sized box takes MADI in and out on coax and turns it into USB 2 goodness, pluggable into every computer in the world and probably the TARDIS too. USB and MADI joined together in happy harmony.

Two things strike you straight away: what has DiGiCo done with the 'S' out of 'USB' in the name of the box? And 2: surely that's 3… USB3 that is? You can't get enough channels reliably down USB2, can you?

Well, inside the UB MADI is a cleverly programmed FPGA (field programmable gate array). This is the device that enables 48 channels of 48kHz audio in and out of your computer. Of course, a word of warning here – if your machine or drive isn't fast enough to shovel all that data, it won't work. Or, if you connect it to a USB bus that is hoaching with keyboards and mice you will also have problems. That, of course, is not DiGiCo's fault – it's just a fact of computing life.

Making An Impression

The design and build of the box is really, really nice – you feel you could stand a sumo wrestler on it without a problem. On the back plate there are two coaxial sockets, and on the front a type B USB plus a multi-colour LED. And that's all there is to it. It comes supplied in a nicely presented box along with a 4Gb USB stick with the drivers on it.

>

THE REVIEWER
ALISTAIR McGHEE began audio life in Hi-Fi before joining the BBC as an audio engineer. After ten years in radio and TV, he moved to production. When BBC Choice started, he pioneered personal digital production in television. Most recently, Alistair was Assistant Editor, BBC Radio Wales and has been helping the UN with broadcast operations in Juba.

Information

Feature Set
- **MADI to USB 2.0**
- **Fully hot-pluggable**
- **48 I/O channels**

Manufacturer
DiGiCo
www.digico.biz

Price Details
UK: £750.00 (exc.VAT)

> To date, most of the development has been done with XP, but there are also drivers for Win7 (both Windows in 32-bit and 64-bit versions) and OSX.

In Use

I used the box with four systems. My daily Fujitsu workstation XP, awash with far too much software and drivers and the registry gunk that gathers over three or four years of daily use. A much cleaner Win 7 64-bit system, another much cleaner XP system but based on AMD, and a MacBook Air circa 2010 with Lion 10.7.4, which is the required OS for the UB MADI on a Mac.

If you want to record or playback 48 tracks of 24-bit audio at 48kHz then you need a system that will cope with writing nearly three and a half gigabits a minute or about 6 megabytes a second. Which doesn't sound too much, but if you want the whole show recorded without a glitch then your system has to maintain this without a hitch over an hour and half. 35 gigabytes of information without repetition, hesitation, or blue screening. All four of my machines managed the trick, though my older AMD system struggled. Even with a separate drive it would occasionally drop out. I fiddled with buffers and things, but basically the moral is don't try and record 48 tracks on an antique computer – you are asking for trouble.

And that, of course, is the problem with making the UB MADI so damned universal.

Just be realistic that's all I'm saying. What you also need to do is check out your Deferred Procedure Call latency. If you are struggling with streaming all that audio, it could be a rogue driver that is cramping your style. Google 'DPC latency', ignore people trying to sell you silicon, and head over to thesycon.de – all will become clear.

Currently the UB MADI supports only 48kHz sample rates, but there's no intrinsic reason why other rates cannot be supported in the future. The driver is minimalist – you don't get a fancy control panel – it's an on or off situation. I would have loved something like RME's metering and matrix panels as an easy place to check ins and outs are working and give you some metering, but you can always use your DAW to do this.

On hand I had Reaper on XP, 7 64-bit, and OSX; and Sequoia 11 (12 coming soon) on XP 32-bit. If you do live in OSX world you will need at least 10.7.4 to use the UB MADI. It actually pushed me to upgrade to Lion, and of course you can now go for 10.8 Mountain Bike.

It is with some trepidation that I use my day-to-day Fujitsu Celsius machine for new hardware (it's been in too many registry hacking wars) but you have to start where you are, and so I did. The installation was easy and went without incident. I started with an RME Micstasy, which worked pretty much plug and play.

From The Manufacturer

""It became apparent – despite the rise in popularity of laptops for recording – the decreasing availability of ExpressCard slots has actually made portable multi-track systems more expensive and less convenient.

"Since our customers, distributors, dealers, and DiGiCo as a company have become increasingly reliant on laptop recording, we knew that a new solution had to be found. It was clear from the outset that the most convenient form would be that of USB 2.0, and despite many suggesting it would be impossible, we managed to develop system that offers 48 channels over USB without sacrificing quality, reliability, or latency."

David Webster,
DiGiCo UK Limited

I then started bouncing 48 track 24-bit files back and forwards between my machines using an RME MADI card in my other PC. I did have a couple of freezes on my old Fujitsu, and in the end I stuck a new system disk in with a clean install of XP and my freezing went away. Windows 7 64-bit was pretty much entirely without incident. I was kind of expecting more issues on OSX, but actually it was fine, again using Reaper. Latency is system dependent and so DiGiCo is not for quoting any figures. As they love to say in the States: "your mileage may vary."

Conclusion

There are, of course, a few things to consider with UB MADI. It's coax only (no optical), you currently can't cherry pick from the 64 MADI channels (it uses the first 48 channels of the MADI stream), and standard USB connectors don't lock in place (these do exist, but it'd have to be a retro-fit).

However, it is 48 channels of MADI into USB2 in a portable, rugged box. The UB MADI is a great bit of kit that is going to be very popular in both live and studio circles. MADI to USB is ready for lift off. AM

THE Buyer's Guides for Professional Audio

All you need to know for Monitors, Microphones, Recorders, Consoles and Live Sound.
All available to download as PDF's from our website

THE INTERNATIONAL BUYER'S GUIDE
DAWS & PLUG-INS 2012
MONITORING & HEADPHONES 2012
MICROPHONES 2012
RECORDERS 2012
AUDIO CONSOLES 2012
LIVE SOUND APPLICATION 2011 – 2012
LIVE SOUND TECHNOLOGY 2012
AUDIO MEDIA

Call now to be included in the next Guide
call Graham Kirk on +44 (0) 1223 911224 g.kirk@audiomedia.com
www.audiomedia.com

Online Storage

The new-look Video Guide examines storage systems for colour grading, online editing, and visual effects.

The development of tapeless workflows and shift to file-based technology has made storage of material during production and post-production a key issue in the broadcast and facilities sectors over the last ten years. The online, or work in progress (WIP), environment is the central part of the programme making process, involving the key technical creative roles of colour correction, visual effects (VFX), and online editing, which usually incorporates compositing, titling, and finishing. This has been a major focus of development for manufacturers and facilities alike, but the choice of system and network connection depends on the type of work being done.

All forms of production and post-production now call for large amounts of storage, but episodic HD programmes can be worked on as lower resolution, compressed files, with Ethernet systems a common option, while high resolution 2k and 4k cinema projects use only low compression, if any at all, which calls for Fibre Channel.

A major reason for the high cost of online storage is that fast semi-conductors are needed to run the main memory processors. Compositors, VFX artists, and graders do not want to wait as footage comes off the WIP network server, particularly if the client is with them in the suite. Being able to call up and open files within a few nanoseconds calls for a highly efficient, and by extension expensive, processing device, compared to those used on offline or archive storage systems.

Over the last ten years terabyte (TB) drives have become almost standard for storage in broadcast and post facilities. A terabyte is equal to one million million bytes (a trillion or ten to the power of 12), so it makes sense that the prefix is derived from the Greek word 'teras', meaning monster. While this is fitting there are bigger and more monstrous capacities now being installed in TV centres and post houses with the arrival of petabyte drives. A petabyte (PB) is one thousand million million, or 1000TB, and has a factor of ten to the 15.

The computer/IT sector has been dealing with enormous amounts of storage for some time, and so has influenced the broadcast market during the move to file-based operations. SGI (Silicon Graphics International) and IBM were among the IT companies that targeted broadcast. Both produce the main storage categories, including NAS (network-attached storage, a more efficient form of file-server working with a disk-storage subsystem), SANs, and disk arrays.

> “As broadcasters and facilities operators got a better idea of what they needed from storage systems they began to demand more specific features tailored to their needs.”

A disk array is a disk subsystem made up of a series of drives controlled by a management program, which makes them appear to the main operating system (OS) as single or multiple virtual disk drives. The RAID (redundant array of independent disks/drives) is among the most common form of array used for high-performance storage. Each system will contain an amount of redundant data, which is used to detect or, in some instances, correct any errors on the array. The higher the proportion of redundant information, the more the array can be protected against undetected errors and the greater the chance of correcting faults when they have been detected.

Storage devices, most commonly the disks, are often configured in clusters, with each cluster formed from several basic storage units that share common borders. A SAN is cluster-based and is among the storage systems most commonly used in broadcasting and post.

As broadcasters and facilities operators got a better idea of what they needed from storage systems they began to demand more specific features tailored to their needs. The main requirement was certainty, knowing that whatever went on to the system was still going to be there when needed and could be easily found and retrieved. This means there can be no single point of failure, so mirrored systems or RAID 5 or 6 arrays (which distribute data to all disks on the store for full redundancy) are used to ensure that footage is not lost. Other features include large amounts of capacity and the ability to scale a system for expansion if more space is needed.

Any form of storage, whether for online or deep archive, is essentially a data dump and so needs to run in conjunction with a media asset management (MAM) program more detail).

Among the manufacturers producing online stores specifically for broadcast and post are ActiveStorage with its ActiveRAID Mac storage for Fibre Channel; Ardis Technologies, producer of the DDP (Dynamic Drive Pool); DVS (part of Rohde & Schwarz), which has the DVS-SAN and SpycerBox ranges; Harmonic, which now incorporates Omneon; Quantum, producer of NAS systems among others; Isilon (a member of the EMC group); GB Labs; and Archion, manufacturer of Synergy UXE (the last two being Ethernet based).

Video editing and compositing workstation manufacturer Avid moved into media servers with the Unity, which led to the current ISIS range. This now comprises the ISIS 7000 enterprise class real-time network and the more affordable ISIS 5000

>

GLOSSARY

Online storage is used to hold large data files containing programme footage during the image manipulation and finishing stages of post-production. Unlike the same-named process for storing files on Internet servers, online storage in broadcasting and post calls for high capacity data stores on site that allow material to be accessed instantaneously from any suite in the facility. Modern servers provide terabytes, or even petabytes, of storage, and are often linked to the main work areas over a SAN (storage area network).

REFERENCE

Oxford Dictionary of Computing, sixth edition, 2008, Oxford University Press

FACILITY FOCUS

Gorilla Group

Cardiff

Main services: Online and offline editing, grading and finishing, audio editing and mixing, visual effects, motion graphics and design, data management, OB facilities/satellite links, studios
Managing Director: Richard Moss
Operations Director: Paul Owen
Contact:
T: +44 (0) 2920 399800
E: bookings@gorillagroup.tv
W: www.gorillagroup.tv

The Gorilla group was launched in the summer of 2011, growing out of well-established Cardiff post-production house Mwnci (pronounced "Monkey"). The company now has three facilities in the Welsh capital and provides a full range of post services for TV programme making, including Wales-set Sky 1 comedy Stella, and location work.

Gorilla runs a file-based workflow with Avid editing workstations and a Baselight colour grading suite, among other facilities. Each of the group's three buildings has its own storage systems, with either Avid ISIS 7000 or 5000 for online/WIP projects and Object Matrix's MatrixStore as the nearline store. The group's third building was opened within the last year and is based on an ISIS 5000 system. Gorilla's technology director Rhodri James says the smaller scale Avid media server suits the facility compared to the big enterprise 7000, which can accommodate over 300 clients.

James says at one time the 5000 did not have the resilience of the 7000 but recent software updates has given it similar elasticity. The ISIS is connected to 25 Avid suites and two dubbing rooms in the third building. Material from digital cameras is loaded into the 5000 and then copied into the MatrixStore, leaving only the necessary WIP footage on the online system.

A feature of the ISIS 5000 is its RAID 6 disk array, which James says is both cost-effective and more efficient in terms of redundancy. "The previous incarnation, the Unity 5, only had RAID 1 mirroring, which meant we lost 50 percent of the total storage " he says. "RAID 6 is a lot more efficient and the system has the bandwidth we need."

The installed system has a raw capacity of 128TB contained in four chassis. "We can keep the storage in a tiered configuration in conjunction with the Object Matrix," James comments. He adds that by having the same set-up of a 7000 or 5000 and MatrixStore in each building is important for the staff: "It gives operational consistency across the facilities."

>

shared media system. Both are designed to work with Avid's Media Composer, NewsCutter, Symphony, Pro Tools, and DS systems, but can also run in conjunction with Adobe Premiere Pro CS5.5 and Apple Final Cut Pro 7.

Apple itself does not produce physical storage systems but licenses Xsan metadata control, file system, and management software to users of Mac OS X. This connects to workstations or computers over fibre channel networks to give access to block storage. A block is a series of pieces of data that can be regarded as a single unit, which is moved around using a single command. Xsan is now in its third incarnation for OS X Mountain Lion.

Next month's Video Guide will addres the recently adopted intermediate level of storage, nearline.

PRODUCT FOCUS

Rohde & Schwarz DVS SpycerBox

Integrated storage system

Starting price: GB£29,000 (for 48TB)

Main specifications:

- 19-inch chassis 5U server
- Two high-performance multi-core processors
- Internal RAID-5 storage for up to 72TB in each single unit
- Linux operating system
- Integrated graphical user interface
- Remote access using DVS Spycer network control software
- Hardware-based KVM (Keyboard Video Mouse) control over dedicated Ethernet

Key Features:

- Local and SpycerNet browse/search
- Automated metadata extraction from SpycerBox content
- Editing of metadata and DPX header information on SpycerBox content
- Built-in defragmenter and descatterer
- Preview proxy clips generation feature
- Integrated media player
- Peer-to-peer copying over SpycerNet
- File format converter
- Job scheduler
- Gigabit quad-port interface
- Two on-board Ethernet ports
- Fibre Channel quad-port 8 Gbit/s interface
- 10 or 40 Gigabit Ethernet (single- or dual-port) interface
- eSATA
- FireWire
- USB 2.0 or USB 3.0

Aimed at both broadcast and post-production work, the DVS SpycerBox storage system comes in two versions: SpycerBox Flex and SpycerBox Ultra. These can be integrated into any storage set-up or production chain due to the inclusion of a variety of optional interfaces.

An upgraded version of SpycerBox Ultra will be shown at this year's IBC, offering a storage capacity of 96TB. Both units in the range can be added to existing installations working as a NAS, a SAN or as hybrid combining the two formats.

The SpycerBox Flex is a recent addition to the DVS range. Based on 2.5-inch SAS (Serial Attached SCSI) drive technology, it contains 48 equipped drives in a single 5U chassis. As well as the latest RAID technology, SpycerBox Flex has increased capacity, bandwidth, and versatility, and now has up to 43.2 TB SAS storage.

SpycerBox can be used in a tiered storage installation comprising a cluster of at least two systems, which can be scaled up by adding cluster nodes. Two or more SpycerBoxs systems connected over a Fibre Channel network can give provide high speed file transfer during VFX, editing and versioning work.

UK Distributor:

root6
4 Wardour Mews, London, W1F 8AJ
T: +44 (0) 207 437 6052
W: www.root6.com

win!

Each month, sE Electronics and *Audio Media* are giving away an sE 4400a microphone to one lucky subscriber. All you need is a subscription to *Audio Media* magazine (digital or print) – if you don't have one, complete this form or subscribe online at www.audiomedia.com. All new subscriptions will automatically be entered into that month's prize draw, and the winner drawn at random from our complete subscriber list, contacted by e-mail and announced in the following month's magazine.

"I've found the 4400a to be a hugely versatile mic – it's great for acoustic instruments, and I especially like it on drums and percussion. Its hyper-cardioid pattern is extremely useful on toms and snare as it control cymbal spillage really well and delivers great punch and tone"

Gil Norton: Foo Fighters, Pixies, Gomez, Feeder, Counting Crows, Maximo Park

- 4 polar patterns
- 10 and 20dB pad
- 60/120 bass cut
- Multi-function shock mount (patent pending)

T&Cs
1. Only one entry allowed per subscription/subscriber.
2. Entry to the draw is only through subscription.

www.seelectronics.com

Sound Engineering

Subscription Form

To qualify for your free subscription you must complete all the questions below:

❶ JOB FUNCTION *(please circle)*

- A Managing Director/owner/ corporate Management
- B Studio/facility Manager
- C Producer/director
- D Chief Engineer
- E Independent/freelance Engineer
- F Engineer/technician
- G Sound Design/editor/mixer
- H Operations/production Manager
- I Consultant
- J Sales/marketing/admin
- K Artist/musician
- L Studio Designer
- M Trainee Audio/Video Professional
- N Other

❷ TYPE OF BUSINESS *(please circle)*

- A Commercial Recording Studio
- B Project/private Studio
- C Audio/video/film Post Production
- D Audio/video/film Production
- E Broadcast Production
- F Tv Station
- G Radio Station
- H Live Sound Production
- I Contractor/installation
- J Venue/auditorium
- K Remote Truck/location Recording
- L Mastering/replication/duplication
- M Rental/hire
- N Acoustics/facility Design
- O Multi-media/internet Web Creation
- P Record Production Company
- Q Corporate/government/telecomm
- R Dealer/distributor/retailer
- S Manufacturer
- T Education/training Facility
- U Media/industry Association
- V Other
- X Games Audio

❸ FIELD OF WORK *(please circle)*

- A Audio Only
- B Visual Only
- C Audio and Visual

❹ PURCHASING AUTHORITY *(please circle)*

- A Authorise
- B Specify/recommend
- C End user only/none

❺ PURCHASE INTENTIONS 2011–12 *(circle all that apply)*

- A Microphones
- B Processors/Plug-ins
- C DAW technology
- D Recorders
- E Monitors/ Headphones/ Amps
- F Live Sound Reinforcement
- G Pro Video Technology
- H Consoles

NAME ....
JOB TITLE...
COMPANY ....
ADDRESS...
TOWN / CITY...
COUNTY / STATE ....
COUNTRY ....
POST CODE / ZIP...
TEL.................................FAX ....
E-MAIL ....@ ....

IMPORTANT:
Sign here if you wish to receive AUDIO MEDIA

Signed... Date......................

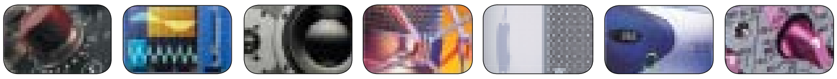
This application is not valid unless every section is completed and it is signed and dated. If you do not qualify to receive AUDIO MEDIA without charge, it is available by subscription at: £43 UK, £60 Europe, £65 Rest of World.

Once you have completed this form please return to IMAS Publishing (UK) Ltd. You may fax back to us on: +44 (0)1354 669965, mail it to us at Audio Media, Imas Publishing (UK) Ltd, Subscription Dept., Suite L16, South Fens Business Centre, Fenton Way, Chatteris, Cambs, PE16 6TT United Kingdom, or visit www.audiomedia.com/subscribe.html and fill out a subscription form for Audio Media.

Incomplete forms will not be processed. This information is used for IMAS subscription purposes only.

The Publisher offers free subscriptions on a limited basis to those who meet publisher's definition of qualifications and reserves the right to not serve or discontinue free subscriptions at any time.

SERVICES



The largest collection of serious recording tools in the UK

KMR AUDIO

www.kmraudio.com
020 8445 2446 • sales@kmraudio.com
1375 Whetstone High Rd, London, N20 9LN

MANLEY · api · digidesign PRO TOOLS HD · Neve · Solid State Logic SOUND | | VISION · CRANE SONG

STUDIO ACOUSTICS

The Studio People 01743-885244
07977-043763
www.studiopeople.com

from designing a small v/o booth to
building your multi-room studio complex
...we do it all!

CALL US NOW FOR A FREE
QUOTATION AND ADVICE

RECRUITMENT

Live for sound?

Get a **Sound** life.

Interfacio provides a unique industry expert search and selection service within the Pro-Audio, Live Sound, Music and Broadcast technology industries. We have a proven record of finding and placing carefully selected and high-calibre individuals in sales, marketing, engineering and management. Our clients are based throughout the USA, Europe and Asia and are now looking to attract new sales, marketing and technical talent - from graduates through to senior business executives with relevant experience who are looking to progress or develop their careers within the industry.

UK Sales & Business Development - Networked Audio; UK South GBP 45-60k

DACH Territory Sales - Broadcast Comms; Germany/Flexible EUR 70-90k

Product Sales Specialist - Pro-Audio/Live Sound USA East USD 60-80k

Japan Business Manager - MI/Pro-Audio; Tokyo, Japan USD 120-150k

Asia Territory Business Manager - Sound Reinforcement Flexible EUR 70-80k

Sales Engineer - Broadcast & Theater - Pro-Audio; USA Mid West USD 60-80k+

UK Sales Manager - Pro-Audio Products; UK, Flexible GBP 50-70k

Interested? Visit the website and contact us in confidence to find out how we can help you or talk about these and other vacancies.

interfacio
global media technology recruitment

Experienced industry professionals helping to develop careers and finding the right faces for the job.

web : www.interfacio.com
email : applications@interfacio.com
telephone : +44 (0) 20 8986 5002

los angeles new york toronto london sydney singapore hong kong

SERVICES

Gasoline Media
Public relations consultancy

Your own PR is always the hardest. Gasoline provides a targeted service for the entertainment technology industry, so let us do it for you.

www.gasolinemedia.com

THE Buyer's Guides for Professional Audio

All you need to know for Monitors, Microphones, Recorders, Consoles and Live Sound.
All available to download as PDF's from our website

THE INTERNATIONAL BUYER'S GUIDE
DAWS & PLUG-INS 2012
MONITORING & HEADPHONES 2012
MICROPHONES 2012
RECORDERS 2012
AUDIO CONSOLES 2012
LIVE SOUND APPLICATION 2011 – 2012
LIVE SOUND TECHNOLOGY 2012
AUDIO MEDIA

Call now to be included in the next Guide
call Graham Kirk on +44 (0) 1223 911224 g.kirk@audiomedia.com
www.audiomedia.com

The Remains of the Day

The use of sound can also be effective in its quiet moments, such tense stillness and sombre mood reflected atmospherically in Kazuo Ishiguro's *Remains of the Day,* says KEVIN HILTON.

Sound for the cinema is not all about explosions, screeching tyres, and fusillades of bullets – although that's how some filmmakers tend to see it. A low-key approach can be just as effective and impressive as a more loudspeaker-shaking blockbuster. A good example of this is *The Remains of the Day* (1993), which held its own in early 90's surround sound demos alongside the more demonstrative *Terminator 2: Judgment Day* (1991) and last week's Classic Cut, *The Fugitive* (also '93).

The differences between these films are clear – there are no conflagrations or gun battles in *The Remains of the Day,* a quiet, dark adaptation of the Kazuo Ishiguro novel, focusing on the butler and house-keeper of an English stately home between the wars who go about their domestic duties as the world changes around them. But in its way the film's use of sound is sometimes as blatant as in *The Fugitive* or *T2*, and it fully exploits the potential of 5.1.

Made by the Director-Producer team of James Ivory and Ismail Merchant, with a screenplay by their regular collaborator Ruth Prawer Jhabvala, *The Remains of the Day* is visually removed from the chocolate-boxy adaptations of the EM Forster novels that made their names. The film is visually restrained, with grey-blue colour tones, an overall feeling of repression and a sense of helplessness, which is communicated by the sound design.

> **"The film's use of sound is sometimes as blatant as in *The Fugitive* or *T2*, and it fully exploits the potential of 5.1."**
>
> Kevin Hilton

A Society In Service

During the 1930s, Darlington Hall in Oxfordshire becomes an unofficial forum to prevent war with Germany. Butler Stevens (Anthony Hopkins) is devoted in his service to Lord Darlington (James Fox), a misguided amateur politician who appeases Hitler's regime and tolerates British fascism. Stevens runs the Hall with housekeeper Miss Kenton (Emma Thompson) but keeps to his place, a world of dark corridors and pokey parlours, venturing out only to serve and clear up after those he sees as his betters.

The great house echoes all round the viewer, with bells ringing from every direction calling the servants to their work. In this the sound captures the activity and urgency of the society that comes to the Hall and emphasises that the staff, while there, are not involved.

The story is told in flashback but opens with Darlington Hall and its contents being auctioned off in the 1950s after its owner's death. The opening music by Richard Robbins, another key member of the Merchant-Ivory team, is grand and swirling but with a tinge of sadness, redolent of a bygone era. The house is bought by former American senator Jack Lewis (Christopher Reeve), who was a visitor during the 1930s and retains Stevens to run the big pile.

The Hall is silent and almost empty in these scenes. This contrasts with how it was during its heyday; full of staff bustling up and down the stairways in answer to the different rings of the bells. In the main parts of the house there is stillness, and when Stevens and Miss Kenton are in these areas voices murmur in the distance, suggesting that more important matters are going on, and clocks tick, giving the impression of time passing even though it appears to stand still at Darlington Hall.

A Dark Future Foretold

Sound is also used to foreshadow what is to come. When Lord Darlington's godson Reginald Cardinal (Hugh Grant) is due to get married, His Lordship feels he cannot speak to him about "the birds and the bees". He asks Stevens to talk to Cardinal, leading to an awkward but comic conversation between the butler and the young man. As they misunderstand each other a propeller aircraft is heard in the background, a reminder to the audience of what faces Britain and, although less apparent at the time, a set-up for the later revelation that Cardinal died during the war.

In an attempt to bring the great powers together Lord Darlington organises a conference at the Hall. While some of this debate is heard clearly, many sections are pushed into the background as Stevens struggles to cope with running the house and the illness of his father (the great Peter Vaughan), who is working there as an under-butler.

This conflict between Steven's personal life and professionalism becomes the main theme of the film and the Writer and Director flag up the juxtaposition of the coming of war and the upheaval caused by Steven's denial of his feelings for Miss Kenton. To support this the use of sound becomes more literal. Sympathetic background is used several times, with rain and thunder underpinning the scene where Stevens and Miss Kenton confront each other over Lord Darlington's decision to fire two Jewish servants. A similar technique is used when Miss Kenton announces she is to marry a butler called Mr Benn (Tim Pigott-Smith); far from being happy she breaks down in front of Stevens as the wind howls outside.

A storm in a later present day sequence, when Stevens' car runs out of petrol while on the way to see Miss Kenton (now Mrs Benn), signals a major change for the butler as he comes to terms with Lord Darlington's complicity. Despite this, and the fact that Mrs Benn has made a new start, it is clear the central characters are still on the periphery of life. As they sit on the pier in the seaside town where Mrs Benn lives, happy chatter of other people and the sound of an organ are heard in the background. When the pier lights come on the other visitors applaud. Stevens is bemused by this, underlining his basic lack of understanding.

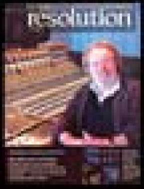
While this is obvious in storytelling terms, Sound Editor Colin Miller and Re-recording Mixer Robin O'Donoghue handle the sound with skill, showing that audio in the movies is not all about crashing trains and nuclear explosions.

"From its build quality to its feature set and open-ended architecture, the Workhorse is currently unrivalled for supremacy."
~ Recording

"Radial can't seem to leave well enough alone! Oftentimes, they take what might be otherwise mundane and turn it into a must have."
~ Tape Op

"The Workhorse certainly lives up to its name. The feature set is deep, the system is scalable, construction is solid and it sounds great. What's not to like?"
~ Mix

"Every connection and function worked as promised. The Workhorse is truly professional grade and worth the cost."
~ Pro Audio Review



"The Workhorse makes a terrific host for modules - solidly built with useful routing features and extensive connectivity."
~ Resolution

"No other manufacturer currently offers anything like this level of functionality in a 500 series rack."
~ Audio Media

"The Workhorse is one of the most versatile and well equipped racks I've ever tried, and exudes the typical Radial Engineering detail and thoughtfulness..."
~ Sound-on-Sound

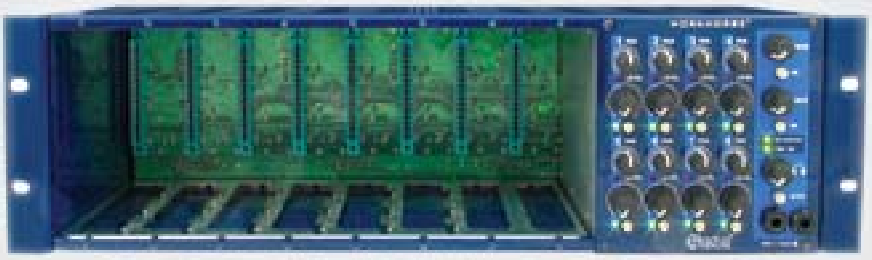
"The Workhorse is the perfect choice for bringing analogue processing to a DAW-based studio."
~ MusicTech

Radial 500 Series Racks... More of everything!

Radial power racks deliver more performance, flexibility and headroom, and with smart, easy-to-use features that make mixing and matching modules a snap!

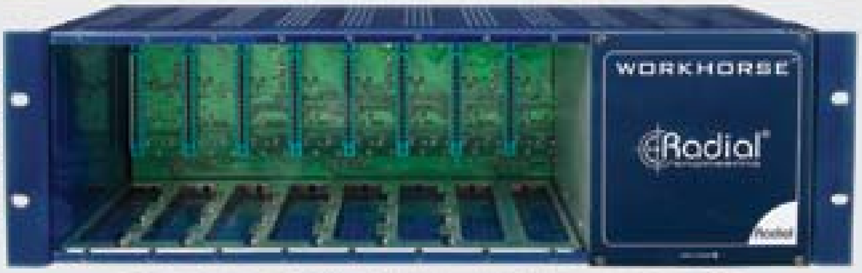
More Performance!

The Workhorse™ - an 8 channel power rack with built-in summing mixer. Lets you combine modules in series or in parallel with more efficiency to deliver creative results that let your mixes stand out. D-subs, XLR and ¼" TRS cross patching included!



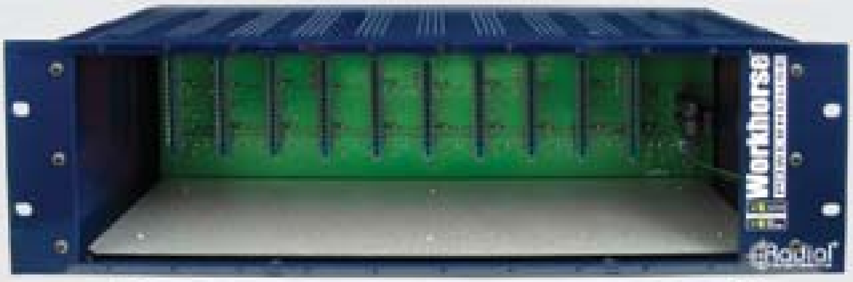
More Flexibility!

The Workhorse WR-8™ - designed for those with mixers in place, the WR8 gives you 8 channels to house your 500 series modules and lets you upgrade by adding the Workhorse mixer section later. Backwards compatible to older 500 series formats.



More Power!

The Powerhouse™ - This 10 space power rack delivers 1600 milliamps of current for extra headroom while maximizing your studio space. Built-in feed and stereo link switches make it easy to integrate with your recording system.



More Convenience!

The Powerstrip™ - Single rack space Powerstrip lets you assemble your favorite preamp, EQ and compressor to create the ultimate channel strip. Use it in the studio and take it on the road... quality with no boundaries!

More easy!

The Cube™ - This small wonder gives you a more easy and affordabe way to enjoy the fun and excitement of 500 series mixing, combining up to three modules to create all new sounds! Place the Cube on your work surface, carry it around the studio with the built-in handle or build it right into your desktop with the optional mounting flanges.

Radial 500 series racks...
Get ready to start creating!

** Modules shown are not included!*

View the Workhorse Videos at:
www.radialeng.com/re-workhorse.htm
www.radialeng.com
1588 Kebet Way, Port Coquitlam BC V3C 5M5 tel:604-942-1001

Radial® engineering
...power tools for power players℠

Authorized Distributors:

Belgium: FACE-BE face-be.eu
Czech Republic: MUSIC DATA musicdata.cz
Denmark: ALFA AUDIO alfaaudio.dk
Finland: MSONIC msonic.fi
France: ARBITER arbiterfrance.com
Germany: SHURE DISTRIBUTION shuredistribution.de
Italy: GRISBY MUSIC grisby.it
Netherlands: TM AUDIO tmaudio.nl
Norway: DRAMMEN drammenlyd.no
Poland: LAUDA AUDIO lauda-audio.pl
Spain: SEESOUND seesound.es
Sweden: ARVA TRADING arva.se
Switzerland: MGM AUDIO mgmaudio.ch
Turkey: AKALIN akalinmuzik.com.tr
U.A.E.: MELODY HOUSE melodyhouse.ae
United Kingdom: SHURE UK DISTRIBUTION shuredistribution.co.uk

WWW.TVTECHNOLOGY.COM

TVTechnology EUROPE

BROADCAST • PRODUCTION • BROADBAND • SATELLITE • MOBILE

SEPTEMBER 2012

TERRAPIN
evertz
AJA
FiDO-R-SC
OPTICAL FIBER TO 3G/HD/SD SDI
Videssence
330

IBC PRODUCT EXTRA

NewBay Media

What if keeping your productions running smoothly was as simple as winding a watch?

TV production is complicated. Make yours run like clockwork.

Trust Miranda's proven studio and truck solutions to simplify your complexity.

As a television production professional, your world is changing rapidly. There's greater complexity, more cameras and external feeds – and the need for more live content. You're prepared to tackle these challenges, but how do you do it without increasing your budget and resources?

Miranda's Densité signal processing, iControl unified control platform and monitoring systems, highly integrated NVISION routing systems and Kaleido multiviewers are all fine-tuned for the fast-paced action of live production, and engineered to work together seamlessly in a simplified worklfow. Built to reduce complexity, improve your efficiency and keep you in control.

Call Miranda to learn more. In the production world, the clock is always ticking.

Tel.: +44 (0) 118 952 3400
www.miranda.com/production

See us at IBC, booth 8-D41

Miranda

A **BELDEN** BRAND

H.264 RF CAMERA

Cobham will debut the latest version of its Solo H.264 wireless HD camera transmission system. The new product features ultra mobile video link (UMLV) communications protocol for stable and low-latency transmission. Its size and portability make it ideal for a wide range of applications including live concerts, breaking news, and close-up coverage of sporting events. The system is specially engineered to reject interference from mobile telephony and other sources and sports a latency of only 15 ms. **www.cobham.com; Stand 1.F41**

4K HIGH SPEED CAMERA; MOTION-COMPENSATED FRAME RATE CONVERSION

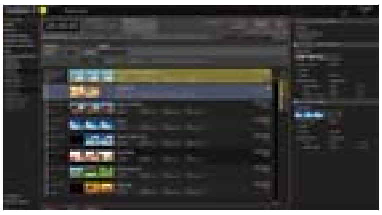
FOR-A will demonstrate the new FT-ONE, a full 4K super slow-motion camera. With a high-sensitivity CMOS colour sensor developed by FOR-A, it captures images at up to 1,000 fps, and replays 4096x2160 film-look "super slomo" video. The FT-ONE stores its raw uncompressed images to the internal 8.5-second RAM. This data is then stored on one of two hot-swappable SSD cartridges. Each cartridge is capable of storing 75 seconds of full 4K resolution images, enabling up to 150 seconds with a maximum of two SSD cartridges. The FT-ONE can simultaneously record and playback in full 4K. Users can choose one output channel as either 4K or four 1080p HD-SDI outputs, while the other output channel provides down-converted HD-SDI for live viewing and the control menu.

High-quality, motion-compensated frame-rate conversion is now available in a compact form, either with the new 1RU, half-width FRC-30 or as the UFM-30FRC card for a UF rack frame that places many converters in one box. These HD/SD converters provide high-quality, motion-compensated frame-rate conversion and also support up/down/cross conversion of 1080i, 720p, NTSC, and PAL at a variety of frame rates for HD/SD-SDI and analogue composite signals. **www.for-a.com; Stand 2.B59, 2.A51**

LIVE SLO-MO, CONTENT MANAGEMENT

New at IBC this year for Evertz will be the European launch of Dreamcatcher, a live slow-motion replay system. Dreamcatcher's editing technology, along with its highly scalable and flexible system architecture offers an innovative approach to live slow-motion replay.

Evertz also will highlight new features of the Mediator and OvertureRT LIVE platforms including solutions that scale from a small, single-channel application to a large, multi-channel playout facility. New key features include handling joined-in-progress events, and complete integration with MAGNUM and VistaLINK. Evertz playout and content management solutions allow content providers to increase efficiency and reduce operating costs by simplifying workflows for publishing to both linear and nonlinear platforms.



Evertz compression and media transport solutions will feature the new 3480 and 3580 series platforms, which facilitate the delivery of content to multi-screen end points. It offers the customer a cost-effective solution for bulk MPEG-2/H264 encoding and transcoding, plus adaptive bit-rate encoding/transcoding and statistical multiplexing. In combination with the new additions to its compression product line, Evertz will also highlight the 3080IPX as a solution for IP transport using 1GbE or 10GbE network interfaces.

Evertz also will showcase new features for its next-generation control system, MAGNUM, including a new media transport module, integrated tally, advanced event scripting, timer control, and unified naming. Evertz will be highlighting new widgets for VUE, the customisable user interface, including a built-in multi-viewer widget. **www.evertz.com; Stand 8.B40**

LED FIXTURES FOR STUDIOS

Videssence will be on the exhibition floor with its high-performance ExceLED Series fixtures for large production studios, theatres, and other areas that require a long throw and high light levels. The ExceLED 100 is able to produce more than 3,300 lux at 7.5m, which is comparable to a typical 2,000-watt fresnel fixture. At only 100 watts this saves power and lamp replacement costs while alleviating the extreme heat of quartz lamps.

The company will also feature the ExceLED 225 "Nine Light," a 225-watt LED with adjustable beam. In spot mode with daylight LEDs, it provides more than 2,200 lux at 15m, twice the light of many 5,850-watt "quartz nine lights". The line also includes a 25- and 50-watt version and kits with three of the 25-watt units. This small, versatile LED fixture utilises a five-inch speedring.

Videssence also offers a variety of fluorescent broadcasting fixtures and kits available for HDTV, studio, and ENG applications. Additionally, the architectural "SOFT" products work well in corporate/video conference and distance learning in architectural spaces. **www.videssence.tv; Stand 11.B10**

UNIVERSAL DISTRIBUTION SYSTEM

Utah Scientific's UTAH-100/UDS Universal Distribution System is a new approach to signal distribution that combines the flexibility of a multi-rate digital routing switcher with the economy of simple distribution amplifiers. This modular system is based on I/O modules with 16 ports, interconnected by a crosspoint fabric that allows any input signal to feed any number of output ports.

The economical design of the modules makes it possible for a 4RU frame to feed up to 144 output ports at a fraction of the cost and power consumption of alternative distribution-amplifier packages, with the added benefit of being able to reassign input signals to each output as operational requirements dictate. The unit's flexibility is extended even further through the use of the FLEX-I/O modular I/O system, which allows users to select the signal format of each I/O port from a complete range of options including analogue video, digital video over fibre or coax, DVI and HDMI, and IP-encapsulated ASI video streams. **www.utahscientific.com; Stand 2.B20**

LOUDNESS, ROUTING, CONNECTIVITY

Miranda Technologies will have several European debuts at IBC. Miranda's end-to-end loudness solution includes monitoring, logging, and correction using real-time processing during the playout workflow. Intelligent ALC uses information fed from a broadcaster's traffic system to identify whether content has been corrected already – and dynamically avoids the unnecessary processing of content that has already been through loudness correction.

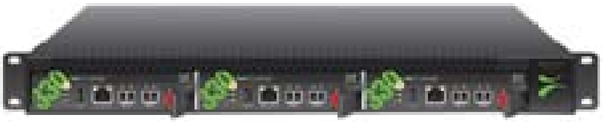
LUMO is a high density electrical-to-optical and optical-to-electrical converter that packs 36 IOs into a 1RU frame. Each converter can be serviced while the unit remains in operation, and the unit also includes dual redundant power supplies and frame controller with dual redundant IP-connections for system monitoring and frame health alarming. LUMO uses the same SMPTE-compliant fibre SFP modules that are found on all 3Gbps products in Miranda's portfolio.

The Kaleido-IP X100 multi-viewer platform is specifically engineered as a cost-effective solution for smaller applications. Housed in a 1RU chassis, this multiviewer can handle monitoring of up to 24 SD or 8 HD video programs. **www.miranda.com; Stand 8.D41**

OTT MONITORING

Bridge Technologies will demo the latest version of its VB330 monitoring and analysis probe, now including advanced OTT monitoring capabilities for high-traffic applications. The VB330's 10GB architecture can deliver 60GB monitoring capability in a 1RU chassis, and the new Bulk OTT Engine can be enabled on any existing VB330 to provide sophisticated monitoring of large volumes of OTT streams. The OTT engine tests manifest files, profiles, chunk download speed and many more parameters, to deliver comprehensive data on OTT service quality. The engine supports Smoothstream, HLS, and HDS, and is M-DASH-ready.

Also at the company's IBC booth, the new VB12-RF is a compact, highly portable broadcast-IP monitoring and measurement appliance for terrestrial, cable, and OTT applications. It features every required interface in an airtight and waterproof polycarbonate unit smaller than a laptop computer, with full TR101290 alarming and analysis, and support for all major transportation codecs. Now featuring a built-in ten-channel OTT engine, the VB12-RF is the world's first portable broadcast probe with OTT capability.



IBC will also mark the European debut of Bridge Technologies' microAnalytics, a complete system for monitoring OTT and 'TV everywhere' services to multiple devices including smartphones and tablets. The microAnalytics System allows operators to remotely access real-time data from set-top boxes, connected TVs, iPads, iPhones, and other mobile devices. The microAnalytics System includes hardware probes, central controller, and data-gathering server, and the microC– a software library for extending monitoring capability to the viewing devices. **www.bridgetech.tv; Stand 1.A30.**

TRANSMITTER SYNCHRONISER

The "GPS-GNS" is a new concept Global Navigation Satellite System (GNSS) receiver/synchroniser (using GPS and/or GLONASS satellites) generating time and frequency signals (1PPS and 10MHz). It is suitable for equipment that needs a high precision clock reference and for the stable synchronisation of broadcasting Single Frequency Networks (SFN). It has special features, with proprietary algorithms, to prevent SFN de-synchronisation and is available in redundant configurations, as an OEM part and is also incorporated in ABE TV transmitters.

Features include high sensitivity and fast satellites acquisition, single satellite reception operation, zero cumulated error and fast cold start-up functions, high stability and low phase noise 10MHz oven oscillator, multiple outputs (1pps/10MHz), redundant configurations for receivers, oscillators and power supplies, and user friendly local and remote control. **www.abe.it; Stand 8.D23**

ADAPTIVE BITRATE TRANSCODER FOR MULTI-SCREEN, MPEG-DASH

At IBC 2012, Evertz will introduce the 3480STX, an adaptive bit rate transcoder for multi-screen delivery. The 3480STX is targeted for the growing over-the-top (OTT) market for delivering content to mobile and web-based devices. The 3480STX is a real-time transcoder. It accepts an MPEG-2/H.264 input and will produce an ABR H.264 output (IDR-aligned, multiple profiles). It also provides a streaming output for various platforms including Apple HLS, Microsoft Live Smooth Streaming, and Adobe Flash. The 3480STX is one of the first streaming platforms to support MPEG-DASH streaming protocol (both ISO BMFF and MPEG-2 for VOD and Live streaming) and it provides variable resolutions and frames that users can control using VistaLINK.

The 3480STX transcoder features the high video quality of the 3480 platform, with optional support for IntelliGain (Evertz' loudness processing engine). With the added support for segmented streaming protocols, the 3480 platform can solve both the linear and over-the-top (OTT) content delivery challenges of today at a low cost per channel. **www.evertz.com; Stand: 8.B40**

IT'S YOUR CLOUD

LYNX℠

LYNX delivers low cost and flexible deployment and gives you access to your media assets anytime, anywhere. It isn't just storage. It's a global, cloud-based implementation of the world-leading DIVArchive CSM system, with features as broad as policy based storage management and online video publishing – all delivered in automated, integrated and secure workflows designed for you and your specialized needs. Stop by our booth at IBC and let's talk about the savings and efficiencies LYNX could deliver for you.

Visit IBC Booth 7.C16

FRONT PORCH DIGITAL

WORKFLOW, PROCESSING PLATFORMS; MULTI-SCREEN, LIVE ENCODER

Digital Rapids will showcase its new Kayak workflow platform. Kayak is available as a comprehensive workflow technology platform for customers, systems integrators and software developers, allowing users to design, deploy, and manage customised workflows.

Also new is Transcode Manager 2.0, the next generation of the company's automated, high-volume, file-based media processing software, with new workflow capabilities, efficiency, and agility for applications from production and archive to revenue-expanding multiscreen distribution. Built on the Kayak platform, Transcode Manager 2.0 combines superior output quality and format flexibility with intelligent, logic-driven workflow automation with rich metadata support; dynamic, on-demand licensing and deployment; intuitive, visual workflow design tools; and a deep ecosystem of third-party technology partners.

Also new is the StreamZ Live Broadcast integrated multi-screen and broadcast live encoder, featuring simultaneous H.264 or MPEG-2 encoding for broadcast applications and multi-format encoding – including adaptive bit rate (ABR) streaming – for multi-screen streaming on platforms including mobile phones, tablets, PCs, IPTV, over-the-top (OTT) services, and more.

The StreamZ Live family of encoders has new features, including enhanced Closed Caption support for adaptive bit rate streaming and expanded support for automated advertising insertion workflows. **www.digital-rapids.com; Stand 7.F33**

AUTOMATING FILE-BASED CREATION; COMPLIANCE RECORDER

Wohler's new RadiantGrid New Media Automation Platform for file-based creation, standards conversion, QC, and distribution of media, augments and integrates with trafficking, rights management, linear automation, and business process management systems. At the heart of the platform is RadiantGrid's TrueGrid enhanced, robust media transformation and parallel processing engine, coupled with an underlying content management fabric that leverages intelligent media processing functions. Powered by this engine, RadiantGrid manages everything from faster-than-real-time transcoding and standards conversion, to more complex processing such as mixed cadence correction, video optimisation, audio loudness conformance, and more.

Wohler will also mark the European debut of its new ContentProbe compliance recorder, featuring dedicated and purpose-built hardware and software that reliably records 24 hours a day. ContentProbe offers a user-friendly GUI that enables rapid and instant access across the network to all channels. ContentProbe provides compliance recording with FaultTracker signal fault monitoring for audio, video, captions, and loudness. With Media FingerPrinting technology for commercial content verification and best-in-class RealSync frame-accurate recording, extensive alerts and notifications can be tailored to user preference. An intuitive Silverlight Web interface supports frame-accurate cueing and easy export of marked clips for external users. Up to four video channels or 16 audio channels, combined with up to 720 days of RAID 5 hot-swappable storage and dual-power supplies, are contained in a single 1-RU enclosure. **www.wohler.com; Stand 10.A10.**

EXPANDED TRANSMISSION OFFERINGS

UK-based Alan Dick Broadcast (ADBL) is now offering a full complement of FM antennas and DVB-T/ISDB-T solutions since its recent acquisition by JAMPRO (located nearby in Hall 8 at IBC). Customers can now purchase a wide range of FM antennas, combiners, and filters, as well as DVB-T broadband slot antennas and filters, rigid transmission line and components directly from ADBL and save on delivery charges. Jampro designs and makes RF components and antennas for radio and television, while ADBL is one of the oldest names in Europe for broadcast antennas, combiners/filters, towers and broadcast infrastructure service. ADBL will stock DVB-T broadband slot antennas, rigid transmission line and components, UHF & VHF bandpass and mask filters. **www.alandickbroadcast.com; Stand 8.B99**

STUDIO & OB INFRASTRUCTURE

Argosy will show its product range, which aims to allow more efficient operations and a reduction in cost and complexity in live studio and OB situations. Included in the line up are the MIL26 and MIL41 stage boxes, the studio wall box, as well as a new range of Neutrik opticalCON Advanced tactical fibre assemblies and associated SMPTE and Triax cable assemblies.

The new range of MIL stage boxes is available in two versions – the MIL26 is used for eight-channel audio cables while the MIL41 is used for 12 channels of audio. These can be wired as a single input in parallel or as a straight feedthrough version. Made using Neutrik XLRs, these robust but compact units are designed to withstand harsh OB environments where they are used for the breaking out from multi-channel audio cables on to single mic cables. The new Argosy wall box is designed specifically for the production environment. It features cable entry points at the rear and base of the wall box making it suitable for studio walls. It also has a unique angled lower section on the front panel to ease the patching of camera cables into the wall box. This provides an optimum bend radius to minimise any strain on the cables and ensures reliable signal transmission. The Neutrik OpticalCON Advanced fibre assemblies offer an easily deployable end-to-end solution with rugged outer-jackets for harsh environments.

IBC will also see Argosy demonstrate its latest video patch panel manufactured by BES. This 24-way panel is designed for uncompromised performance even with 1080p 3Gbps signals. The 1U MUSA panel is built with high durability gold plated connectors, giving an insertion loss of less than 0.5dB and a true 75Ω nominal impedance. Each panel is tested with a 1080p signal over 50 metres of cable before delivery to guarantee performance to SMPTE 424M. Complementary U links and patchcords, in a range of colours are also available from Argosy. **www.argosycable.com; Stand 10.C51**

4K KI PRO; THUNDERBOLT I/O; SDI/OPTICAL CONVERSION

AJA has never been known to say a lot before a trade show about what it will have on stand, but many of the company's NAB releases will be making IBC debuts. Ki Pro Quad is a new solid-state portable video recorder capable of capturing high-quality edit-ready files in formats including 4K (4096 x 2160), Quad HD (3840 x 2160), 2K (2048 x 1080), and HD (1920 x 1080), for the fastest path from camera-to-editorial with 10-bit 4:4:4 and 10-bit 4:2:2 colour support. It helps facilitate a powerful workflow for 4K, accepting RAW camera output via SDI simultaneously outputting that data via Thunderbolt. The recorder also performs debayer processing of the RAW data that can be used to produce on-board Apple ProRes recordings to SSD media. HD, 2K, and 4K ProRes files recorded to removable SSD media may easily be used in a variety of popular non-linear editors. The debayered image produced by the Ki Pro Quad can also be used for 4K monitoring in real time. A scaled or cropped output is also simultaneously available for 2K or HD monitoring via dedicated SDI and HDMI connections.

Also new at NAB and debuting in Amsterdam will be the T-TAP, a very small bus-powered device that takes advantage of Thunderbolt connectivity for high-quality 10-bit SD, HD, and 2K output through SDI and HDMI connections. This new adapter enables a simple, unobtrusive means of getting professional video and audio out of any Thunderbolt-enabled Mac system. T-TAP provides video professionals an easy setup solution via its simple, single Thunderbolt cable connectivity for both power and data. T-TAP supports everything from SD to HD to 2K and 3D with 10-bit quality, even over HDMI, and all with eight-channel embedded audio. T-TAP includes AJA's Mac drivers and software for integrated compatibility with major software packages from Apple, Adobe, Avid, and many more.

Finally AJA's FiDO family of SDI/optical fibre converters enable the transport of SDI, HD-SDI, and 3G SDI over distances of up to 10km. Designed for outdoor or indoor use, the converters pass the complete SDI signal (including audio and/or metadata), and meet all relevant SMPTE specifications. Their low profile enclosure enables use in tight spaces around and behind equipment racks, trucks and crowded facilities. Many versions are available and pricing begins at US$445.
www.aja.com; Stand 7.F11

LEDs
for Your Mobile Needs!

2300 LUX AT
4.5 METERS

The new ExceLED Kit provides three powerful LED fixtures at only 25 watts each! Provided as shown with stands, barn doors, spread lenses and heavy-duty flight case with retractable handle and wheels. The perfect kit for lighting on the run!

IBC Stand #11.B10

Call 626.579.0943

10768 Lower Azusa Road, El Monte, CA 91731 USA
www.videssence.tv

Videssence™

MARIO'S MUST-SEE: BLACKMAGIC DESIGN CINEMA CAMERA

I was mighty impressed by the Blackmagic Design Cinema Camera at NAB, and it's sure to be a big draw at IBC as well. It's the Swiss Army Knife of cameras… a 2.5K imager, plus HyperDeck recorder… plus a touch-LCD monitor… plus DaVinci colour correction… and it's cheaper than a discount-warehouse DSLR. Only Blackmagic could heap on the extra helpings like that – and then slash the price to under US$3,000, making it affordable right down into classrooms and church basements. If you've been waiting to make the jump to a big, fat cinema-grade camera, but you're so stuck on black-body, trendy brand-name hype that you don't grab this camera right away, take note: you've been shown up for the superficial fool you really are. **www-blackmagic-design.com; Stand 7.H20**

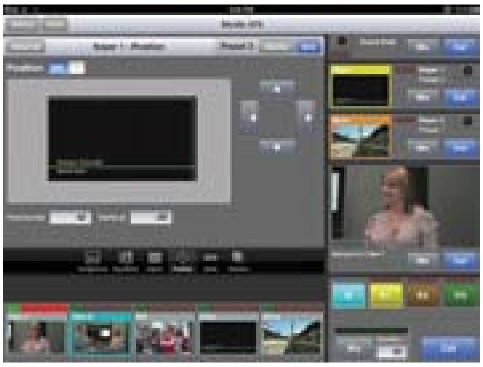
HIGH-END STANDARDS CONVERSION; CINTEL ACQUISITION

Blackmagic Design does not release much if any information before a trade show. The fruits of some recent acquisitions will likely be front-and-centre at IBC. In December Blackmagic acquired Teranex Systems and commenced a product review process, before designing two new models that would improve on the VC100 design that Teranex had been selling. The new models feature reduced size, whisper quiet operation, new connection with technologies such as HDMI, analogue, upgraded 3 Gbps SDI, independent AES/EBU and balanced analogue audio connections, as well as adding new Thunderbolt technology.

The new processors also take advantage of the latest advances in electronic components and assembly techniques, which has resulted in a dramatically more affordable design for the customer. There are now two new models with different features. The Teranex 2D Processor is a single processor model that offers all conversions in 4:2:2 quality in a single channel. The Teranex 3D Processor model features dual processors so can handle dual channel conversions for full resolution 3D processing, as well as 4:4:4 quality. Both models are 1RU with built in power supply, and feature 3 Gbps SDI, HDMI and analogue video I/O, with independent eight-channel AES/EBU and four-channel analogue audio. Both models include SIMD processing for extremely high quality broadcast upconversion, downconversion, SD/HD crossconversion, SD/HD standards conversion, cadence detect and remove, noise reduction, adjustable scaling, aspect ratio conversion, and smart aspect settings.

The late July acquisition by Blackmagic of the assets of film scanner vendor Cintel International will also be a big topic at IBC. Blackmagic has acquired the intellectual property and all aspects of Cintel's entire portfolio of film scanning products. This includes all IP, name and brand ownership and product development rights. **www.blackmagic-design.com; Stand 7.H20**

NEW LAYERING ENGINE



Earlier this year Ensemble Designs introduced a new Layering Engine for use in broadcast, live venues and presentation. The new Avenue P9425 Layering Engine provides a complete and flexible solution for combining audio and video content for channel branding, small master control, centralcasting, fly-pack and remote truck applications. More than a traditional mix effect, the Layering Engine, has two, independent linear keyers, program/pre-set background transitions, and audio mixing, voice over, and breakaway.

iPad control and monitoring set the Avenue Layering Engine apart from other small mixers and logo inserters. The iPad interface gives the operator freedom and flexibility in switching an event or show. Also, an iPad or web browser can be used to quickly and easily create keyed presets that can be recalled on-air by automation systems.

Layering Engine inputs can be driven by SDI signals from cameras, remote feeds, character generators, graphic and stillstore systems, and video servers. The full range of SDI signals from SD to HD and 3G formats are supported. Base configuration is 8x2 and larger systems can be configured up to 30 I/O ports. Realtime processing and low latency simplify system integration. **www.ensembledesigns.com ; Stand 8.B91**

HDMI/SDI CROSS CONVERTER

The MD-CROSS from Decimator Design is a portable converter that incorporates a new easy to use LCD and button control system. It includes the same down/up/cross converter from Decimator's established MD-DUCC, allowing either the HDMI or SDI input to be scaled and/or frame rate converted to the required standard. It features the following four modes: HDMI to SDI while simultaneously converting SDI to HDMI; HDMI to HDMI while simultaneously converting SDI to SDI; HDMI to SDI and HDMI; and SDI to SDI and HDMI. It is also a professional 3G/HD/SD test pattern generator featuring 26 selectable output formats, and 54 test patterns including luma and chroma zone-plates. The unit also includes (3G/HD/SD)-SDI Active Loop-Through Output; full 16-channel audio metering overlays; adjustable safe title and safe action overlays and static center cross; text overlays, and more. **www.decimator.com; Stand 7.A43**

IBC2012@RAI, Amsterdam
Stand# 2.A51 (HALL 2)

FOR.A®
INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

HD/SD Frame Rate Converter
FRC-8000
HD/SD 1 M/E - 2 M/E Video Switcher
HVS-390HS
"HANABI"
HD/SD 2 M/E - 3 M/E Digital Video Switcher
HVS-4000HS
"HANABI"
FOR-A ALL STARS
FT-ONE
3G/HD/SD Multi Purpose Signal Processor
FA-9500
Full 4K Variable Frame Rate Cmaera
FT-ONE
All-in-One Live Production System
SmartDirect
LTO-5 Video Archiving Recorder
LTR-100HS/120HS
HD/SD High-Resolution Multi Viewer
MV-1620HS
LTO Server
LTS-50

Full 4K Variable Frame Rate Camera

FT-ONE **NEW**

4K Super Slow: You've Never Seen Before...

FOR-A is proud to introduce the world's very first full 4K resolution slow-motion camera, the FT-ONE. Thanks to its state-of the-art, custom-made high-sensitivity CMOS color sensor, the FT-ONE takes slow-motion/high-speed recording to new heights: full 4K resolution at 1000 fps; recording onto internal RAM memory and storing in hot-swappable SSD cards; simultaneous playback and recording. Nothing can escape the new 4K FlashEyes.

HD Variable Frame Rate Camera

VFC-7000

Compact, lightweight and configured as an all-in-one self-contained unit, the VFC-7000 is an easy to operate variable frame rate camera that is capable of High-speed 700 fps HD full frame recording. Frame rate can be varied from 24 to 700 fps. F mount (Option: PL mount) is available. Also DC drive is supported, making it optimal for recording outdoors and in other environments with no power source.

www.for-a.com

● Head Office (Japan)	Tel: +81 (0)3-3446-3936
● USA Western (CA)	Tel: +1 714-894-3311
● USA Eastern & Midwest (NJ)	Tel: +1 201-944-1120
● USA Southern (FL)	Tel: +1 305-931-1700
● Latin America & Caribbean (FL)	Tel: +1 305-931-1700
● Canada (Toronto)	Tel: +1 416-977-0343
● UK (London)	Tel: +44 (0)20-8391-7979
● Italy (Milan)	Tel: +39 02-254-3635/6
● Middle East-Africa (Dubai)	Tel: +971 4-887-6712
● Korea (Seoul)	Tel: +82 (0)2-2637-0761
● China (Beijing)	Tel: +86 (0)10-5170-9870

Continuous Innovation

FIBRE OPTIC SYSTEM

Telecast Fiber Systems will debut Thunder, designed for OB, broadcast, infrastructure, and live sound applications. It requires only one or two strands of fibre to transport up to 80 bi-directional channels of audio, data, and/or intercom signals, configurable in up to 10 eight-channel blocks. Rows of 16 XLR and DB9 connectors can also be added to provide traditional audio, intercom, and data interfaces when those connectors are preferred. In addition, the system can be equipped with a portable, throwdown "Stage Box" offering 32 analogue inputs, eight analogue outputs, and two intercom channels.

The Belden-owned company will also mark the European debut of several products, including the Terrapin TR-D6 3Gbps HD/SDI Video Transceiver and Distribution Amplifier, a compact bi-directional throwdown device that features both a fibre optic (ST) input and a copper (BNC) input, as well as a fibre optic output (ST) and six copper (BNC) outputs. A single push-button operation allows the user to easily switch between four modes, permitting the Terrapin TR-D6 to act as an HD/SDI distribution amplifier with six BNC outputs and a fibre optic output, a fibre optic transceiver with six BNC outputs of the received signal or the local copper signal, or as an optical repeater with a six-output BNC tap. **www.telecast-fiber.com; Stand 10.B39**

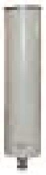
INTEGRATED LIVE CAMERA; CELLULAR UPLINK

LiveU and Panasonic will demonstrate their next-generation integrated live camera solution, utilising the LU40i video uplink device and the new Panasonic AJ-HPX600 P2 camcorder. The complete camcorder transmission system provides a high-quality video feed with simple remote operation.

LiveU also will present its LU70 mobile uplink unit with its second-generation internal and new external antenna arrays. Boosted by its remotely-located antennas, the LU70 backpack supports up to 14 cellular links simultaneously, offering extra-strong resiliency in built-up, crowded areas and when on-the-move. One-Touch-Live (LiveU OTL) mode allows automatic adjustment of video resolutions for fast and easy live video transmission at the touch of a button. Another feature is point-to-multipoint distribution, whereby a single device can broadcast live to multiple, varied destinations concurrently.

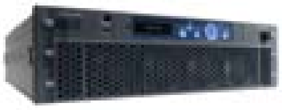
Finally, LiveU will unveil the latest developments of its compact HD/SD video uplink solution, the LU40i. Since its launch at IBC last year these units have transmitted live video from events including the Super Bowl, the NBA All-Star Weekend and Finals and the GRAMMY Awards. **www.liveu.tv; Stand 14.365 (IBC Connected World Zone)**

TRANSMISSION KIT & SERVICES



Jampro will focus on its commitment to providing customisable, high-quality, and reasonably priced transmission systems. IBC highlights include the JAT-U UHF super turnstile and JUHD Broadband UHF panel antenna (both radome-enclosed); the Prostar JA/MS-BB Broadband UHF Slot Antenna for multichannel/combined channel operations; the affordable RCEC (8-inch) mask filter; and the compact and modular RCCC constant impedance combiner. In addition, Jampro will emphasise the vast scope of services – spanning from concept to completion – available from its Service Group. **www.jampro.com; Stand 8.B96**

WORKFLOW FOR OTT, MORE



At IBC2012, Harris Broadcast Communications will showcase the latest tools and technologies that allow media companies to prepare for any particular distribution channel at the right cost level. The company will show its workflow available today for tomorrow's standards, and discuss the challenges faced where baseband meets broadband.

Over-the-top (OTT) TV will be a key feature at IBC this year, and Harris will highlight the relevance of many of its core technologies to this business model – from baseband infrastructure and file-based processing to compression and networking, as well as non-linear ad sales/traffic scheduling systems. In an industry that is constantly evolving, Harris asset management and business solutions ensure broadcasters maximise revenues in both traditional and emerging business models.

"In today's rapidly changing world, broadcasters need insight from partners capable of showing where this evolutionary process could lead us," commented Richard Scott, Senior Vice President, Global Sales and Services, for Harris Broadcast Communications. "Harris is unique in terms of the breadth of our technology solution combined with the ability to integrate our systems alongside third-party solutions. "With this market position comes a responsibility not only to supply the technology, but also the thought leadership about where our industry is heading and what is the lowest risk route of arriving where our customers need to be. At IBC, we will demonstrate that we have both the proven technology and the integrated vision that our customers need to thrive and survive in this dynamic market," concluded Scott.

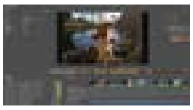
At IBC2012, Harris will also demonstrate new products, features, and applications in many of its core areas of expertise, including servers, storage and editing, routers and multi-viewers, signal processing, transmission, video headend solutions, automation and digital asset management, OB truck workflow solutions, and test & measurement. **www.harrisbroadcastlive.com; Stand 7.G20**

STORAGE; COLLABORATIVE EDITING; EDGE SERVER

XOR Media (formerly SeaChange Broadcast) will exhibit its open, cloud-capable, and media-optimised technologies at IBC 2012. The company will showcase its XOR Universal MediaLibrary T-series storage with simultaneous NAS and SAN access for IP-based media workflows. A user can access files over Fibre Channel, iSCSI, CIFS, NFS, and FTP without reconfigurations or gateways. Also on show will be collaborative editing with the XOR Universal MediaLibrary E-series, a compact and affordable media storage system, which will be shown integrated with an MXFserver. This can create a collaborative production environment with Apple Final Cut Pro, Avid MediaComposer, and Adobe Premiere Pro.

Finally XOR will show the XOR MediaServer 1200 edge server with high-density channel ingest and playout capabilities, featuring Stream-Through; multi-format back-to-back playback on a single output port; and built-in storage of up to 16TB HDD or 4.8TB SSD. **www.xor-media.com; Stand 6.C29**

MULTI-TRANSCODE CAPABILITY; QC IN FILE-BASED WORKFLOWS



AmberFin comes to IBC with a message for media organisations: properly applied QC in file-based workflows can reduce delivery time and cost whilst increasing efficiency. AmberFin Unified Quality Control (UQC) increases confidence in the quality of media files, reduces cost linked to their production, and adds value to the whole diversity of media products a facility creates by highlighting real faults whilst removing false negative and false ositive results.

Alongside the latest enhancements to its UQC system, AmberFin will showcase the latest developments in its iCR file-based content ingest and transcoding system. iCR's multi-transcode option will make its European debut, which enables users to run up to eight different transcode nodes simultaneously on a single PC, thereby reducing the cost per channel while obtaining better use of their PC hardware. AmberFin will also introduce a series of specialist transcode and ingest packages at more affordable price points. **www.amberfin.com; Stand 7.J39**

7-16 DIN COXIAL TRANSFER SWITCH

The New Line of Myat 7-16 DIN coaxial transfer switches offer reliability and performance in a compact and light-weight package. A high quality motor and a meticulously designed drive movement ensure years of consistent operation, while a precision built RF Path provides unmatched power handling capacity, high isolation, and low VSWR across the entire broadcast frequency band. The switches are available with 7-16 DIN Male or Female inputs. The switch drive comes in 120 VAC or 240 VAC, and the control can be configured for 12 VDC or 24 VDC. Manual override can be performed in the event of AC power loss. **www.myat.com; Stand 8.E22**

INTELLIGENT GLUE; 25TH ANNIVERSARY

Axon Digital Design will celebrate 25 years of developing what has become known as 'broadcast glue' products, highlighting the increasingly important role that modular core processing technology plays within modern broadcast workflows. On show at IBC, the latest version of Axon's Cortex software application makes the implementation of multiple video and audio signal paths easier, more efficient, and cost-effective. Cortex provides tools to configure, monitor, and maintain a diversity of devices including Axon's Synapse range of control modules and other third-party products. Users can take total control over multiple and complex routines involving numerous users, enabling them to configure workflows exactly how they wish to meet specific production needs.

Making their European debut at IBC 2012, the new Cortex Tally and Mnemonic options allow users to interface signal processing and routing equipment using native protocols and/or GPI units in order to operate various display and tally devices. The Generic Devices option allows for interfacing to a number of third party devices using their native control and/or monitoring protocols. **www.axon.tv; Stand 10.A21**

Live
Wireless
Low-Latency
Video Over IP

comrex.com

LIVESHOT

3G 4G WiFi BGAN

Visit us at IBC
Stand 11.G11

19 Pine Road, Devens, MA 01434 USA • Tel: +1 978-784-1776 • Fax: +1 978-784-1717 • e-mail: info@comrex.com

COMREX

SUPER SLOW MOTION, 1080P CAMERAS

Hitachi Kokusai Electric Europe promises a new era in its European business, with a major broadcast camera R&D initiative starting to pay dividends, many of which will be on show for the first time in Amsterdam. Amongst the new Hitachi cameras making their European debuts at IBC 2012 will be the SK-HD1500 super slow motion camera and the 16-bit SK-HD1200 1080P/3G production camera, which will be shown working in combination with LGZ's Just Replay Server system.

Hitachi will also showcase a number of production cameras that have been specifically developed for different broadcast applications from wireless operation to fibre system, POV, and goal-mouth cameras. **www.hitachi-keu.com; Stand 11.E30**

MANAGEMENT SYSTEM

Netia is debuting the latest version of its content management system, which allows users to manage all phases of workflows from editing operations through post production and distribution. This latest edition includes a new GUI with added category fields, a multi-lingual thesaurus, and an enhanced administration application that simplifies system management. Netia is also offering a new iteration of its RadioAssist radio automation system, version 8.1. Additions include an integrated music scheduling application and video edition capability, as well as new browsing and publishing tools. **www.netia.net; Stand 1.A29**

506 MBPS TWO-WAY THROUGHPUT; S2 EQUIPMENT

Newtec has ushered in a new era of bandwidth efficiency by breaking the 0.5 Gbps two way throughput over a 72 MHz transponder on a Eutelsat satellite earlier this year. The tests were carried out in several steps to validate different market application scenarios. In the two-way high-speed backbone tests, Newtec combined its Bandwidth Canceller and Next Generation modems (Newtec MDM6000 series) to achieve 506 Mbps (2 x 253 Mbps).

A number of elements were used to achieve this efficiency, including Clean Channel Technology (a Newtec technology for implementing lowest roll-off and filtering to boost throughput). New modulation and Forward Error Correction (FEC) codes were also used. In particular for this part of the test, a completely reworked 32 APSK 135/180 (135 over 180) modulation was used. In another test, 352Mbps was achieved in a one-way distribution set-up over the 72 MHz transponder using 64 APSK modulations and related codes, with significant margin on the Ku-band system.

Newtec also offers the new M6100 broadcast satellite modulator that includes the new DVB-S2 standard extensions and radio frequency interference countermeasures. The company's new portfolio of satellite modems includes the MDM3100 IP that handles up to 40 Mbps in the download mode and 5 Mbps when uploading data. The new devices incorporate DVB-S adaptive coding modulation, "Clean Channel Technology," and advanced 4CPM modulation and embedded acceleration, compression and encryption. **www.newtec.eu; Stand 1.A49**

FASTER WORKFLOWS

Quantel's revolutionQ software architecture promises greatly speeded-up workflows, and when added to low cost storage options, can provide immediate online access to years and years of content for multiple users. The new software integrates with the company's current Enterprise sQ systems, protecting customer's existing investments and providing additional value. The latest colour and finishing innovations are available with the company's new Pablo. The product integrates with modern stereo 3D and high frame-rate postproduction pipelines and is available as a software-only or turnkey packages with a full range of configurations. Quantel also has new tools and innovations for existing Pablo and Enterprise sQ products. **www.quantel.com; 7.A20**

CONVERTERS, SCALERS, TEST GENERATORS, MULTI-VIEWERS

Redbyte/ Decimator Design offers a full range of up/down/cross converters, multi-viewers, audio monitoring gear, and test pattern generators, including the MD-CROSS, a portable converter that features 54 test patterns and an easy-to-use push button and LCD control system. Redbyte's small-footprint Decimator 2 converts 3 G, HD, and SD SDI signals to both HDMI and NTSC/PAL video, with simultaneous scaling on both outputs and a de-embedded analogue audio output. **www.decimator.com; Stand 7.A43**

EXPANDED AUDIO NETWORKING

Riedel Communications' RockNet RN 334 SI card fits in any Soundcraft SI audio console expansion slot and provides 32 inputs and outputs to the RockNet system. The RN 334 SI joins similar interfaces for Yamaha and Studer console products. In addition, Riedel's is offering enhanced conversion functionality for its MN-HDP-6-IO media card used with the MediorNet fibre-based real-time networking system. It now provides integrated broadcast quality signal conversion with low latency and next-generation motion adaptive deinterlacing and scaling technologies to ensure high quality images. **www.riedel.net; 10.A31**

8-CHANNEL SLO MO

Tightrope Media Systems' ZEPLAY eight-channel slow-motion instant replay serve records four SD or HD video streams and can playout any or all of those streams simultaneously. The device is designed for single-operator control and includes a built-in multi-viewer and GPI interface. **www.trms.com; Stand: 7.D07**

MARIO'S MUST-SEE: MICRO P2

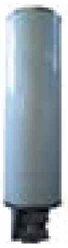
Panasonic Micro P2: Panasonic's ingenious P2 card design got the industry launched on safe, robust digital storage… and about 20 minutes later, people started looking for cheap knockoffs and work-arounds. No matter whether it's P2 or SxS, it seems nutty to me that you could hang out your shingle as a big-time shooter, but balk at buying the bulletproof media that safeguards your content. But the wise marketers of Panasonic have responded with market-friendly, SD-sized P2 media – and companion adaptor – that leave little to chance in terms of rock-solid storage. **www.panasonic-broadcast.eu; Stand 9.D35**

WIDE ANGLE 80X &70X

Canon's new DIGISUPER 80 and DIGISUPER 76 lenses move high magnification with a wide angle ahead. The DIGISUPER 80 adds an extra 5x magnification over its predecessor, while an 8.8mm focal length provides a wide angle around five percent greater than the DIGISUPER 75. The DIGISUPER 76 is the successor to the DIGISUPER 72, and its 9mm wide angle is three percent greater than its predecessor. It also has a superior zoom ratio – 76 times compared to 72. Both lenses are designed to deliver compelling close-ups from a distance, close-ups that are enhanced through the lenses' optical performance that ensures both high resolution and high contrast throughout the entire zoom range.

In addition, high resolution has been achieved from the centre to the periphery of the image. The two lenses also incorporate a built-in Optical Shift image stabiliser. Through shake-detecting sensors and a microcomputer, this counteracts image shake and maintains a stable picture and provides greatly improved image stabilisation. **www.canon-europe.com; Stand 11.D55**

TURNSTILE UHF ANTENNAS

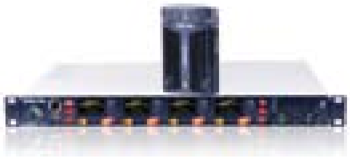


Aldena Telecomunicazioni SRL will be offering its new Aldena ATS series turnstile UHF antennas for digital TV applications/gap filling. ATS antennas have an omnidirectional pattern over the entire UHF band, are top mounted, and plug and play with low VSWR, weight, and windload. ATS are available with different max power and gain (from 1 KW up to 5 KW and form 5dB to 8dB). The Aldena ALP18 antenna covers a wide frequency range from Band III up to Band IV and Band V. ALP18 is designed to discover SFN network coverage problems (echos, EM levels) and in conjunction with a test or monitoring receiver, it can be used for versatile applications, e.g., field-strength measurements or determination of direction of incidence and signal polarisation. **www.aldena.it; Stand 8.E37**

SOCIAL MEDIA INTEGRATION

Chyron will showcase SHOUT and ENGAGE, the company's newest standalone solutions designed for use with today's most popular social media, social TV, and second screen applications. SHOUT allows broadcasters to integrate social media conversations into live broadcast programming quickly and easily without the need for additional staff. Operators can monitor, select, sort, and integrate social media content into their on-air graphics for live playback or to save for later use. Similarly, the ENGAGE platform gives broadcasters the ability to add viewer interactivity such as votes, polls, and tweet battles into their live news and sports programming, along with accompanying graphics, while maintaining routine production workflows. Both of these software-based solutions will make their European debut at IBC 2012. www.chyron.com; Stand 7.D11

DIGITAL WIRELESS COMMS



Clear-Com's HelixNet Partyline delivers a network of intercom products designed with digital audio sound and networking simplicity. HME DX210 Digital Wireless offers a blend of wireless performance, system compatibility and ease of use. Tempest2400 Digital Wireless operates in a license-free frequency band and excels in the most crowded RF environments. FreeSpeak Digital Wireless combines full-duplex and antenna-to-antenna roaming for reliable communications. The Eclipse Digital Matrix is a point-to-point intercom platform that seamlessly integrates with digital wireless and IP-based software intercoms. Concert software-based intercom allows communication over a single network via the Internet, LAN or WAN. Encore Partyline offer intuitive plug-and-play design and superior audio clarity. **www.clearcom.com; Stand 10.D29a**

LOUDNESS MANAGEMENT

Cobalt Digital's LMNTS (Loudness Management for n-Transport Streams) uses Linear Acoustic's Aeromax technology to perform automatic loudness processing across many transport streams, making it ideal for MVPDs and MSOs where a large number of diverse programming sources must be simultaneously controlled. It operates at the MPEG IP transport layer to provide a practical loudness management solution without the need or complexity of external codecs transferring between baseband and MPEG external interfaces. Available in both IP and ASI versions, LMNTS extracts and decodes audio codec packets from the program stream, performs high-quality PCM loudness processing, and then re-encodes and re-packets the audio within its stream. Physically, all data connections to LMNTS are via GigE IP or ASI interfaces using an industry-standard IT hardware platform with no intermediary breakouts. **www.cobaltdigital.com; Stand 10B27**

TRANSPARENT LOUDNESS CORRECTION

DaySequerra will showcase its LC2 feature stereo loudness measurement and transparent loudness correction, designed to maintain desired loudness levels without metadata dependence, all in a competitively priced 1RU package. It meets world-wide industry-standards: ITU-R BS.1770/1-2, EBU R128, and ARIB TR-B32 loudness specifications. The LC2 has easy-to-read numerical LKFS, target and true-peak level readout displays. Its remote Ethernet interface allows long-term logging, email alerts and field software updates. Options include external DVI display and dual redundant power supplies. **www.daysequerra.com**

CONTENT REPURPOSING; ENTERPRISE IP

Digital Nirvana will introduce four versions of its flagship product, Monitor IQ, as well as two new products: MediaPro IQ, a content repurposing system, and ManyView IQ, an enterprise IP video distribution system. All Digital Nirvana solutions are cost-effective, all-in-one scaled network devices offering open API's for easy third party integration. Each system reliably records from DVB-T/C/S2, IP, ASI, ASI/IP, SD/HD-SDI, ATSC, QAM, NTSC, or PAL protocols. **www.digital-nirvana.com; Stand 10.A12**

NEXT-GEN KVM EXTENDERS

Gefen is bringing three new KVM (Keyboard, Video, Mouse) extenders over IP to IBC. Designed for post-production professionals, each model supports the connection of sender and receiver units feeding through the Ethernet connection, allowing up to 200 metres of signal extension: 100 meters on the sender side and 100 metres on the receiver side using CAT-5 cable. All three KVM extenders supply connections for audio, video, USB, RS-232 and IR in addition to DVI, HDMI or VGA. For each KVM system, the receiver unit supplies two additional Ethernet connections to support additional devices. A total of 16 sender and receiver pairs can be connected in one system.

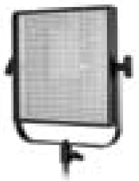
The HD KVM over IP delivers HDMI at 1080p full HD with 3D pass-through. Additional peripherals such as USB, audio, RS-232 and IR remote are available. The DVI KVM over IP sends high-resolution DVI at 1920x1200 with USB, stereo audio, RS-232, and IR remote control up to 200 metres using a sender/receiver system. The VGA KVM over IP extends high-resolution VGA at 1920x1200 with USB, stereo audio, RS-232 and IR remote control up to 200 metres using a sender/receiver system. All three KVM over IP extenders can be mixed to satisfy cross-platform capabilities between DVI, HDMI and VGA to enhance overall functionality. **www.gefen.com; Stand 7.B30**

LIVE PRODUCTION SYSTEM

Grass Valley will launch the latest version of the Grass Valley STRATUS Media Application Framework, a complete, new live production environment from camera to integrated playout system, bringing increased interoperability to the video production and delivery environment. The new version of GV STRATUS includes plug-ins for AP's ENPS and Avid's iNEWS (allowing users to access all of their NCRS tools within GV STRATUS) streamlining the news production processes for logging clips. These new tools also facilitate the unlimited sharing of clips and content-creation tools between collaborative workgroups or individual users.

Also shown for the first time at IBC will be several new software modules, including the tight integration of GV STRATUS with the K2 Dyno Replay System such that metadata created with Dyno and stored on a K2 Summit server can be immediately available to other operators working on the same GV STRATUS-enabled network and vice-versa. **www.grassvalley.com; Stand 1.D11, 1.E02, OE120**

ENTRY-LEVEL LED PANEL



Litepanels will introduce the 1×1 LS, the newest fixture in the 1×1 LED Panel Series. For professionals working in the field who do not require DMX control, the 1×1 LS offers a combination of features found in the popular 1×1, but at an entry-level price. The fixture offers quality, visually accurate daylight colour-balanced output in either flood (50° beam) or spot (30° beam).

Litepanels will also showcase the Inca Series tungsten balanced LED Fresnel fixtures, which are colour-matched to incandescent tungsten lighting fixtures. Inca Fresnels are available in four-inch and six-inch lens sizes. Sola Series daylight balance LED Fresnels , available in four-inch and six-inch sizes, as well as a Sola ENG model with three-inch lens designed for portable, battery-powered use, will also be shown, along with a Sola ENG Flight Kit in a custom, carry-on-sized rolling Pelican case. **www.litepanels.com; Stand 11.E55**

MARIO'S MUST-SEE:
SONY NEX-FS700

A big-res big brother for the little NEX-FS100, Sony's NEX-FS700 is one of this year's bombshell cameras. Soon, a firmware update will deliver 4K resolution, and if that's what you need, it's perfect for you. But if you merely want 2K, or even just HD… outrageous slo-mo is your bonus prize – gorgeous 240fps in full 1920 HD, and faster at lower resolutions. **www.sony.co.uk; Stand 12.A10**

MULTI-FORMAT HD CAMERA

Leading off Ikegami's IBC 2012 exhibit is the new Unicam HD camera line. These multi format HD cameras – which also provide 3G-SDI 1080/50p performance – include the new HDK-97A 16-bit portable HD companion-camera that supports not only 1080i/720p, but also 3G signals such as 1080/50p 4:2:2 and 1080/50i 4:4:4. The HDK-97A employs advanced new progressive AIT CCD imagers and an all-new digital video processing system for superior picture detail and accurate rendition of colour gradations. Delivering a choice of 1080/50p 4:2:2 or 1080/50i 4:4:4 colour sampling, the new high bit-depth HDK-97A is designed for traditional-style multi-camera production applications. **www.ikegami.de; Stand 11.A31**

CLOUD CSM, DR

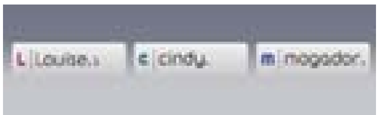
Front Porch Digital will show LYNX, an enterprise-scale CSM. It delivers adaptable on-demand scalability, can reduce capital and operational costs, and can revolutionise the management of assets. It leverages the latest cloud and Web technologies to provide a range of networked and distributed solutions.

At IBC2012, the company will introduce LYNXdr and LYNXlocal for the first time in Europe. LYNXdr is a hosted disaster recovery service that allows global media enterprises to centralize critical assets and consolidate operations. LYNXlocal is a simple extension to LYNX that operates locally as an appliance, caching cloud content and providing integration to specialist systems if needed. LYNXlocal is billed as a service element at a low monthly rate. **www.fpdigital.com; Stand: 7.C16**

BROADCAST MANAGEMENT

ProConsultant Informatique's Louise is a broadcast management system for managing and scheduling media assets. It provides a centralised database for end-to-end management of program and business information including rights, contracts, scheduling, and all associated metadata.

Cindy is an air time sales software package. It provides sales management with cross-platform revenue optimising tools and dynamic, automated updating, and more. It also provides account management, invoicing and drill down reporting. **www.proconsultant.net; Stand: 2.B21**



SMALLER, SMARTER TRANSMISSION

Harris Broadcast Communications introduced its PowerSmart concept four years ago for the purpose of increasing power density and efficiency. At IBC, Harris extends its PowerSmart value proposition with new compact transmitter design options that are especially helpful to international broadcasters faced with minimal real estate and challenging budgets. Harris is evolving its Maxiva UAX digital transmitters by integrating more power- and space-efficient technologies first introduced in its Maxiva UAX Compact Class brand – reducing the vertical footprint by 2RU. These new designs, now shipping, are available for all Harris digital modulations (DVB-T2, DVB-T/H, and others) from power levels of 300 W to 1250 W.

Harris also addresses real estate challenges for high-power broadcasters – many of whom share transmission facility space – by integrating band-pass filter systems into its Maxiva ULX high-power UHF transmitters. Additionally, Maxiva ULX transmitters can now incorporate external liquid cooling pump systems into the transmitter cabinet, further reducing installation time and floor space requirements. **www.broadcast.harris.com; Stand 7.G20**

TS RECORDING & PLAYOUT; DISASTER RECOVERY

Pixelmetrix will demo new enhancements to its DVStor2 Transport Stream Recording, Playout, Compliance Recording and Disaster Recovery product line. DVStor2 will be shown with EPG support that simplifies locating and selecting specific programs within the massive library of the DVStor2. Once located, the entire program can be exported in native or reduced resolution. DVStor2 also sports a new Timeline Content Browser, with a browser that fits seamlessly into any network environment, helping operators find content in any input stream promptly. The operator can mark an "In" and "Out" point once located, and then export the clip via two clicks. Clips can be exported in MPEG-TS, Quicktime and MPEG-2 formats. The DVStor2 EPG augments the highly visual Timeline feature, providing direct visualisation of program content on multiple services and transport streams.

Another enhancement to the DVStor2 is the MultiFlow feature, which enables simultaneous and independent recording and playback of numerous content streams, allowing several time delayed streams originating from a single input or multiple inputs to be played out, all with one machine. Alternatively, a single DVStor2 can be deployed to provide compliance logging and media monitoring of many stations at a time. **www.pixelmetrix.com; Stand 1.F34**

DIGITAL TRANSMISSION

DB Elettronica will feature its new DBT Series of digital transmitters, which is fully compatible with international DTV standards and suitable for SFNs and MFNs. The DBT Series has an output power range from 6 W to 40 kW in analogue operation and from 2 W to 12 kW in digital. The transmitters are fully broadband. The series is equipped with a high-performance digital modulator (DVME-16) fully and easily configurable to meet all the requirements of the DTV standards. The spectrum bandwidth may be user-configured to 8, 7, or 6 MHz as required. Hierarchical modulation (optional) allows simultaneous transmission of two MPEG-2 transport streams.

The DBT Series transmitters have an intuitive and easy-to-use interface to select the frequency without any readjustment needed. A digital linearity precorrector in the modulator combined with a selective output band-pass filter allows a user to obtain a perfectly clean spectrum in the adjacent channels and an excellent modulation linearity. Very low phase noise oscillators allow optimal BER and MER performances. **www.dbbroadcast.com; Stand 8.C74**

FILE-BASED TRANSCODING; MULTI-SCREEN DELIVERY

Harmonic Inc. will mark the European debut of its new ProMedia Xpress high-performance file-based transcoder, the latest addition to the comprehensive ProMedia Suite multi-screen solution. ProMedia Xpress uses Harmonic's H.264 codec technology to deliver high-quality video and MicroGrid parallel-computing technology to achieve what the company describes as "dramatic" transcoding performance.

Harmonic will also highlight a new addition to its dense ProStream with ACE real-time stream processor and transcoder portfolio that adds dual power supplies to maximise service uptime for broadcast and OTT services. For storage and playout, Harmonic will show enhancements to the recently introduced Spectrum ChannelPort integrated channel playout device that unites channel branding and master control switching with clip playout, as well as a new addition to the MediaStore scalable and reliable high-performance shared storage offerings for Spectrum media server. **www.harmonicinc.com; Stand 1.B20.**

CAMERA-MOUNTED IP VIDEO CODEC

Comrex Corp. will have several of its newest innovations on display. The LiveShot Video IP codec will be featured with its Portable and Studio units, which transmit full-duplex, low-latency SD/HD video and audio over a wide variety of IP data circuits. LiveShot Portable is a small, lightweight, camera-mounted video codec, which features load balancing of multiple 3G/4G devices, a full duplex audio cue channel, store and forward functionality and the ability to be completely remote controlled when used with LiveShot Central Server.

The new STAC VIP VoIP Call Management System will also be on display. STAC VIP features the ability to manage wideband "HD Voice" calls from HD Voice-capable apps and VoIP phones. STAC VIP is also "Plugged Into Skype," which allows it to manage Skype calls from PC and smartphone users. It also allows broadcasters to utilise low-cost VoIP lines to realise tremendous cost savings over traditional telephone circuits.

A new app for both Android and iPhone smartphones, VIP QC, makes connecting to STAC VIP using HD Voice as simple as Download, Select and Connect. The ACCESS IP Audio Codec will also be on hand for attendees to see and hear. **www.comrex.com; Stand 11.G11**

CHANNEL-IN-A-BOX

Sports Highlights
You're watching... Tropical Wonderland
Rush Hour Traffic Report Coming Up Next
NEWS 6
Sports Highlights
everlz
overture RT LIVE

overture RT LIVE

OvertureRT LIVE is a cost-effective playout engine with integrated video/audio mixing and advanced channel branding and graphics features. **OvertureRT LIVE** is a component of Evertz Digital Factory, which is controlled by Mediator, Evertz' content management and automation software. **OvertureRT LIVE** is ideal for applications that span from a single HD/SD playout channel up to larger multi-channel playout facilities.

Visit us at IBC - Booth 8.B40

www.evertz.com • 1.877.995.3700

evertz

US West Coast Sales
+1 818-558-3910
uswestsales@evertz.com

Washington DC Sales
+1 703-330-8600
dcsales@evertz.com

New York Sales
+1 201-337-0205
newyorksales@evertz.com

UK Sales
+44 (0)118-935-0200
uksales@evertz.com

South-East Europe Sales
+385 1-2001-665
SEeuropesales@evertz.com

Dubai Sales
+971 4-422-9113
middleeastsales@evertz.com

Asia Pacific Sales
+852 2850-7989
asiapacificsales@evertz.com

Australia/New Zealand Sales
+61 431 290 409
australiasales@evertz.com